

Keep With Operator's Manual

LOADER MOUNTING KIT 2409TL LOADER, KIOTI TRACTORS

| MODEL | ROPS | CAB |
|--------|------|-----|
| DK40SE | X | X |
| DK45SE | X | X |

TRACTOR & MOUNTING KIT GENERAL INFORMATION

Mounting kit can be installed on tractor and loader using tools ordinarily available, including standard and metric wrenches and a torque wrench.

Valve and plumbing kit or hose kit to tractor loader control valve is required to plumb loader to tractor. It must be installed as part of initial loader mounting, but after loader mounting brackets have been installed. Refer to Mounting Loader section, later in these instructions, and instructions contained in assembly manual provided with valve and plumbing kit.

NOTE: *Mounting kit is not compatible with mid-mounted mower.*

Mounting kit is compatible with optional grille guard kit. If grille guard is to be installed, it may be installed before or after installing loader mounting brackets or mounting loader.

References to left and right used in these instructions refer to position when seated in operating position on tractor. Shut off engine and engage brakes during installation.

NOTE: *Leave all attaching hardware loose until mounting brackets are completely assembled to facilitate assembly and proper alignment. Tighten all hardware to torques specified in general torque specifications table.*

PREPARING TRACTOR

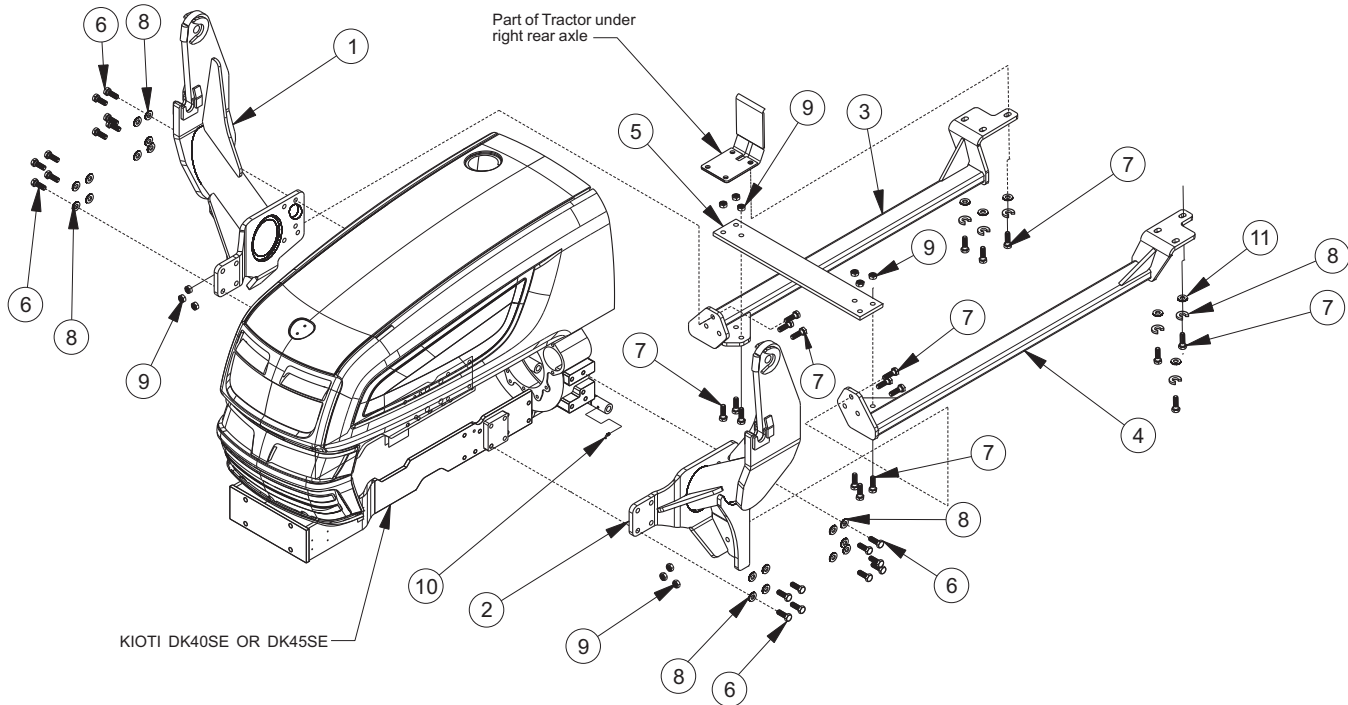
1. Temporarily remove tractor hood side panels and front grille to prevent damage during installation of loader mounting brackets.
2. Temporarily remove lower side panels from left and right sides of tractor by removing attaching bolts at front and rear of each panel.

3. Remove hole plugs from holes in tractor transmission housing which will be used for attaching left and right loader mid mounting brackets.
4. Remove straight grease fittings from tractor brakes and replace with 6mm x 1mm x 90° grease fittings (10). Install grease fittings (10) to point downward.

INSTALLING MOUNTING BRACKETS (Figure 1)

1. Fasten left mid mounting bracket (2) to left side of tractor clutch housing using 14mm x 40mm cap screws (6) and M14 Nordlock washers (8). Repeat procedure to fasten right mid mounting bracket (1) to right side of tractor.
2. Fasten left rear rail bracket (4) to lower side of tractor left rear axle casting using 14mm x 45mm cap screws (7), 9/16" flat washers (11), and 9/16" lock washers (8). Fasten left rear rail reinforcement bracket (4) to left mid mounting bracket (2) using 14mm x 45mm cap screws (7) and lock nuts (9). Repeat procedure to fasten right rear rail bracket (3) to lower side of tractor right rear axle casting and the right rear rail reinforcement bracket (3) to right mid mounting bracket (1).
3. Tighten all hardware to torques specified in general torque specifications table. All 14mm cap screws are class 8.8 hardware.
4. Reinstall lower side panels and attaching hardware to left and right sides of tractor.
5. Reinstall tractor hood side panels and front grille, removed earlier.

Figure 1
Loader Mounting Kit



PARTS LIST – LOADER MOUNTING KIT

| Item | Part No. | Description | Qty. |
|------|----------|---|------|
| 1 | 54308 | BRACKET, Mounting, Mid, Right | 1 |
| 2 | 54309 | BRACKET, Mounting, Mid, Left | 1 |
| 3 | 54322 | BRACKET, Rear Rail, Right | 1 |
| 4 | 54323 | BRACKET, Rear Rail, Left | 1 |
| 5 | 54330 | BAR, Crosstie | 1 |
| 6 | 42672-23 | SCREW, Cap, 14mm-1.50 x 40mm, Class 8.8 | 18 |
| 7 | 42672-38 | SCREW, Cap, 14mm-2.00 x 45mm, Class 8.8 | 18 |
| 8 | 41837-6 | WASHER, Lock 9/16" | 24 |
| 9 | 54277-1 | NUT, 14mm-2.0 Toplock | 12 |
| 10 | 6075-25 | FITTING, Grease, 90°, 6mm x 1mm | 2 |
| 11 | 42502-11 | WASHER, FLAT 9/16" SAE | 6 |

MOUNTING LOADER (Figures 2, 3, 4, 5, 6, 7, & 8)



WARNING: Loader must be supported before removing hardware securing loader to shipping pallet or loader will tip over.



WARNING: To avoid injury during installation of loader, do not allow bystanders within ten feet of loader or attachment.



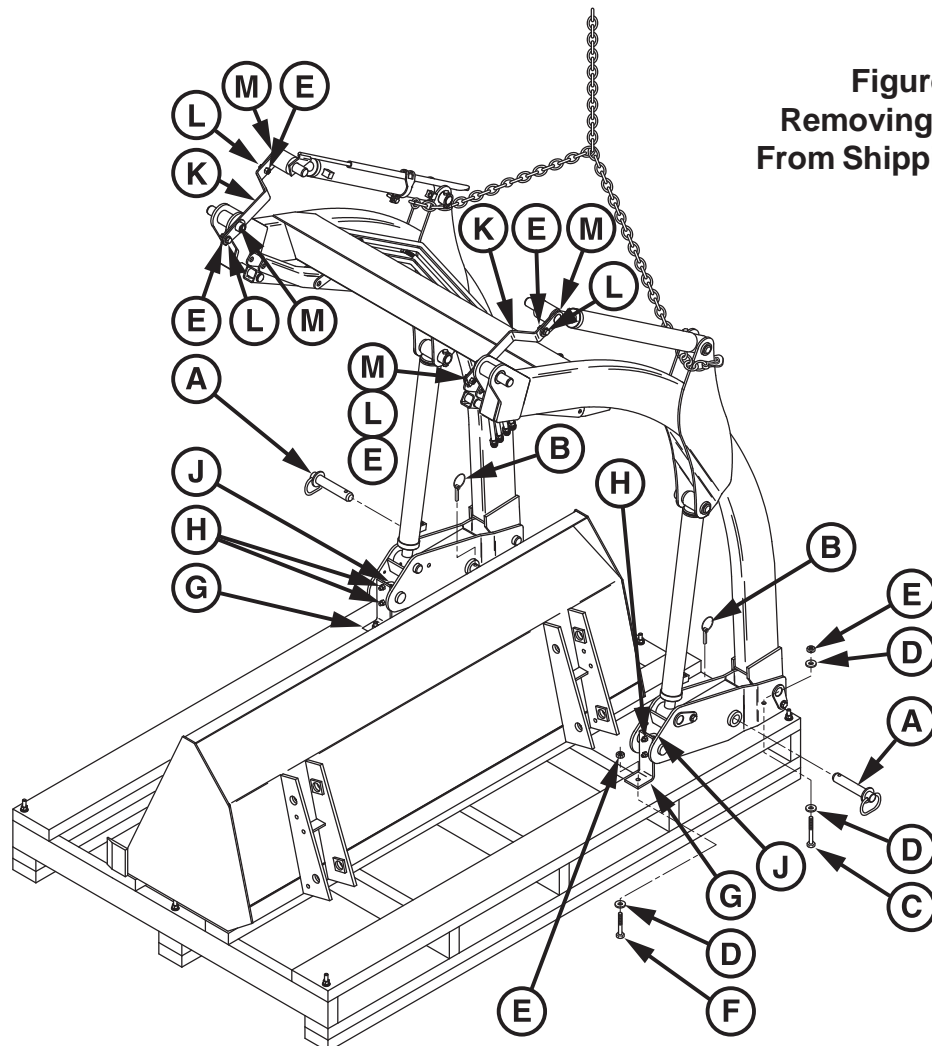
WARNING: To avoid injury during installation of loader, an overhead hoist must be used for initial mounting. Parking stands are not operational without bucket or heavy attachment mounted. (Bale spear or pallet fork alone do not provide enough weight.

2. Temporarily remove linch pins (B) and hitch pins (A) (see figure 3) and keep with loader for securing loader uprights to mid mounting brackets later.
3. Remove 3/8" lock nuts (E) and flat washers (D) which fasten loader uprights to pallet and can be found inside uprights near top end. Remove 3/8" lock nuts (E) which fasten shipping angle brackets (G) to pallet. Remove 5/16" lock nuts (H) from U-bolts (J) to remove shipping angle brackets (G) from loader. Discard shipping brackets and hardware. Raise loader off pallet and remove pallet with bucket (see figure 3a).

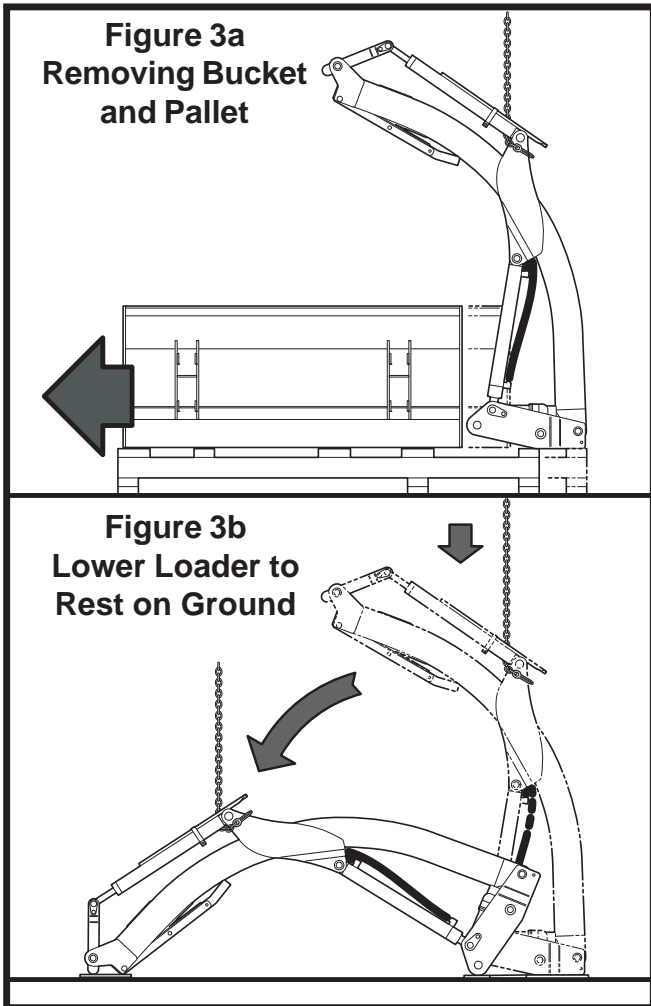


WARNING: Loader uprights may rotate downward when loader is lifted from pallet.

1. Loop chain or sling under each tilt cylinder, around loader outer knee plate and hook to each outer knee plate (see figure 3). Put slight tension on overhead hoist to prevent loader from tipping.
4. Lower loader from vertical shipping position to horizontal, positioning scraps of cardboard on floor under loader to protect loader paint (see figure 3b).



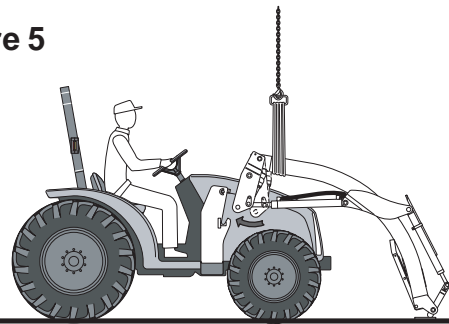
**Figure 2
Removing Loader
From Shipping Pallet**



NOTE: It is important to attach lift cylinder hoses (coded with yellow and green bands) for loader to function properly. Do not connect boom oil line hoses for tilt cylinder control at this time. Connect these after shipping brackets are removed from attachment pin hubs in instruction 12.)

- Start tractor engine. Retract lift cylinders fully and continue to activate control lever for approximately 10 seconds. Cycle cylinders several times to remove air. Extend lift cylinders four or five inches from the fully closed position to ensure loader upright pin will be first part of loader upright to make contact with stop surface of loader mounting brackets. Shut off engine and set brakes.

Figure 5



- With overhead hoist, position loader upright pin to clear mount pin saddle by 1" (see figure 6). Start tractor engine and move tractor forward until both loader upright pins come to rest against flat vertical stop surface of both mounting brackets. Shut off engine and set brakes.

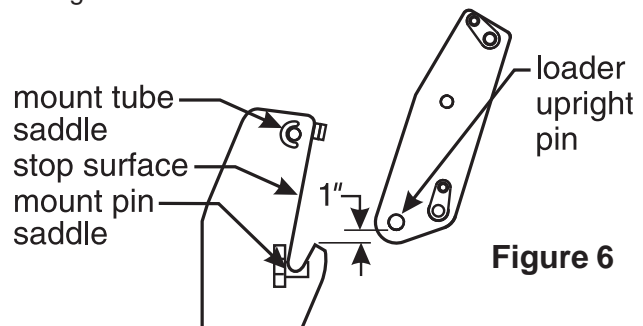
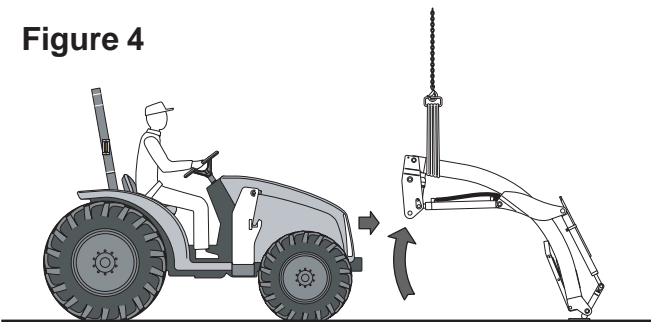


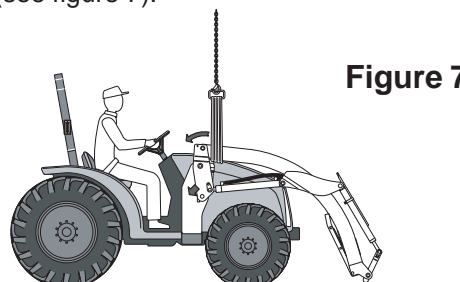
Figure 4



- Drive tractor into loader until uprights of loader mounting brackets are within 12" or 18" of loader uprights. Shut off engine. Attach lift cylinder function hoses (color coded green and yellow) to corresponding tractor or valve couplers.

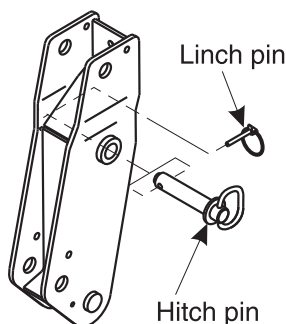
- Lower loader with overhead hoist until both loader upright pins rest into mount pin saddles. Start tractor engine and retract lift cylinders, rotating loader uprights until uprights are fully seated into back of mount tube saddles (see figure 7).

Figure 7



- Shut off tractor engine and set parking brakes. Insert two 1" x 5-5/8" pins (A) and linch pins (B), which were removed from loader uprights in instruction 2. Remove hoist chain or strap from loader boom arms.

Figure 8



NOTE: In some cases a small amount of additional force may be required to insert pins. If necessary, use a drift and hammer made of non-sparking material (a shot-filled mallet is recommended) to seat loader uprights into mount tube saddles.

- Remove 3/8" shoulder bolts (L) and lock nuts (E) to temporarily remove anti-rotation pins (M) to remove shipping brackets (K) (see figure 2). Discard shipping brackets (K), retaining anti-rotation pins and hardware for later reuse when installing bucket or attachment.
- Attach tilt cylinder function hoses (color coded blue and red) to corresponding tractor or valve couplers.
- Start engine and fully extend and retract cylinders several times to purge air from hydraulic system. Add additional tractor hydraulic fluid as specified in tractor operator's manual to bring level of hydraulic fluid up to full.
- Adjust front wheel tread setting or steering stops, if necessary, to provide a minimum 3/4" clearance between front tires and any part of loader with lift cylinders fully retracted and front axle fully oscillated. Be sure lift cylinders are fully retracted. Refer to page 1, under preparing tractor. Refer to tractor operator's manual for tread setting and steering stop adjustment procedures.

INSTALLING BUCKET OR ATTACHMENT

Refer to loader operator's manual to install bucket or optional attachments. See instructions below for installing level rod with right tilt cylinder pin.



WARNING: Always have a bucket or heavy attachment attached to loader when it is removed from tractor. Pallet fork, bale spear, or similar attachments are too light to safely counterbalance loader boom arms when loader is dismantled from tractor.

ADJUSTING LEVEL INDICATOR FOR BUCKET OR ATTACHMENT (Figure 9)

Insert level rod into level indicator tube on right tilt cylinder. Pin level rod to rod end of right tilt cylinder by sandwiching level rod pivot angle between left side of cylinder cross tube and inside of attachment ear.

To adjust level indicator properly, locate tractor and loader attachment on a firm level surface with attachment resting on level surface in operating position. Loosen clamp bolt that fastens level indicator tube to right tilt cylinder and position it so end of level rod is at top end of tube.

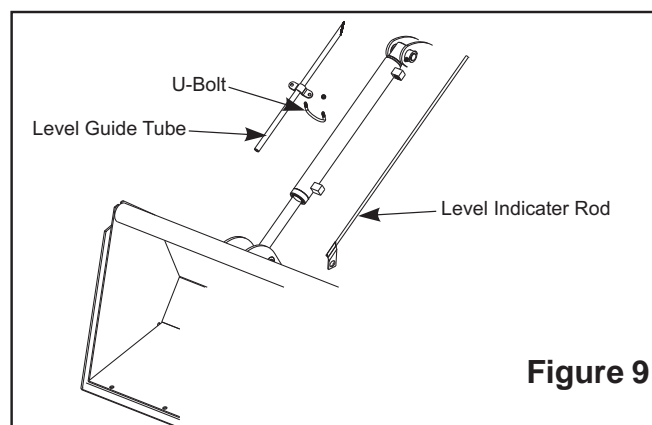






Figure 9

GENERAL TORQUE SPECIFICATIONS

USE THE FOLLOWING TORQUES WHEN SPECIAL TORQUES ARE NOT GIVEN

Standard American and Metric Cap Screws

| AMERICAN STANDARD CAP SCREWS | | | | | | | | | METRIC CAP SCREWS | | | | | | | | |
|------------------------------|---|------|------|------|---|-----|------|------|--|---|------|------|------|---|------|------|------|
| SAE Grade | 5 | | | | 8 | | | | Metric Class | 8.8 | | | | 10.9 | | | |
| Typ. Head Markings |  | | | |  | | | | Typ. Head Markings |  | | | |  | | | |
| Cap Screw | TORQUE | | | | TORQUE | | | | Cap Screw | TORQUE | | | | TORQUE | | | |
| Size | FT·LBS | | N·m | | FT·LBS | | N·m | | Size | FT·LBS | | N·m | | FT·LBS | | N·m | |
| Inches | MIN | MAX | MIN | MAX | MIN | MAX | MIN | MAX | Millimeters | MIN | MAX | MIN | MAX | MIN | MAX | MIN | MAX |
| 1/4 - 20 | 6.25 | 7.25 | 8.5 | 10 | 8.25 | 9.5 | 11 | 13 | M6 x 1.00 | 6 | 8 | 8 | 11 | 9 | 11 | 12 | 15 |
| 1/4 - 28 | 8 | 9 | 11 | 12 | 10.5 | 12 | 14 | 16 | M8 x 1.25 | 16 | 20 | 21.5 | 27 | 23 | 27 | 31 | 36.5 |
| 5/16 - 18 | 14 | 15 | 19 | 20 | 18.5 | 20 | 25 | 27 | M10 x 1.50 | 29 | 35 | 39 | 47 | 42 | 52 | 57 | 70 |
| 5/16 - 24 | 17.5 | 19 | 23 | 26 | 23 | 25 | 31 | 34 | M12 x 1.75 | 52 | 62 | 70 | 84 | 75 | 91 | 102 | 123 |
| 3/8 - 16 | 26 | 28 | 35 | 38 | 35 | 37 | 47.5 | 50 | M14 x 2.00 | 85 | 103 | 115 | 139 | 120 | 146 | 163 | 198 |
| 3/8 - 24 | 31 | 34 | 42 | 46 | 41 | 45 | 55.5 | 61 | M16 x 2.50 | 130 | 158 | 176 | 214 | 176 | 216 | 238 | 293 |
| 7/16 - 14 | 41 | 45 | 55.5 | 61 | 55 | 60 | 74.5 | 81 | M18 x 2.50 | 172 | 210 | 233 | 284 | 240 | 294 | 325 | 398 |
| 7/16 - 20 | 51 | 55 | 69 | 74.5 | 68 | 75 | 92 | 102 | M20 x 2.50 | 247 | 301 | 335 | 408 | 343 | 426 | 465 | 577 |
| 1/2 - 13 | 65 | 72 | 88 | 97.5 | 86 | 96 | 116 | 130 | M22 x 2.50 | 332 | 404 | 450 | 547 | 472 | 576 | 639 | 780 |
| 1/2 - 20 | 76 | 84 | 103 | 114 | 102 | 112 | 138 | 152 | M24 x 3.00 | 423 | 517 | 573 | 700 | 599 | 732 | 812 | 992 |
| 9/16 - 12 | 95 | 105 | 129 | 142 | 127 | 140 | 172 | 190 | M27 x 3.00 | 637 | 779 | 863 | 1055 | 898 | 1098 | 1217 | 1488 |
| 9/16 - 18 | 111 | 123 | 150 | 167 | 148 | 164 | 200 | 222 | M30 x 3.00 | 872 | 1066 | 1181 | 1444 | 1224 | 1496 | 1658 | 2027 |
| 5/8 - 11 | 126 | 139 | 171 | 188 | 168 | 185 | 228 | 251 | <p>NOTE: These values apply to fasteners as received from supplier, dry or when lubricated with normal engine oil. They do not apply if special graphite or moly sulphide greases or other extreme lubricants are used.</p> | | | | | | | | |
| 5/8 - 18 | 152 | 168 | 206 | 228 | 203 | 224 | 275 | 304 | | | | | | | | | |
| 3/4 - 10 | 238 | 262 | 322 | 355 | 318 | 350 | 431 | 474 | | | | | | | | | |
| 3/4 - 16 | 274 | 305 | 371 | 409 | 365 | 402 | 495 | 544 | | | | | | | | | |
| 7/8 - 9 | 350 | 386 | 474 | 523 | 466 | 515 | 631 | 698 | | | | | | | | | |
| 7/8 - 14 | 407 | 448 | 551 | 607 | 543 | 597 | 736 | 809 | | | | | | | | | |
| 1 - 8 | 537 | 592 | 728 | 802 | 716 | 790 | 970 | 1070 | | | | | | | | | |
| 1 - 14 | 670 | 740 | 908 | 1003 | 894 | 987 | 1211 | 1337 | | | | | | | | | |

INSTALLATION INSTRUCTIONS