

## 2409 LOADER MOUNTING KIT INSTRUCTIONS CNH 3010S TRACTOR

MODEL	2WD	4WD	LESS CAB	WITH CAB
3010s	X	X	X	

### TRACTOR & LOADER GENERAL INFORMATION

Mounting kit can be installed using tools ordinarily available, including a hoist capable of lifting and supporting the loader for initial mounting, standard wrenches and a torque wrench, hydraulic oil, and a non-sparking drift and hammer (a shot-filled mallet is recommended).

Check tractor tire pressure. Refer to tractor operator's manual for recommended pressures. With tractor on a firm, level surface, compare tractor rear axle height from left to right, measuring from axle center to ground. Adjust air pressure in rear tires until axle height measures same for both sides.

**NOTE:** *If rear axle on tractor is not level from side to side, cutting edge on loader bucket or similar loader-mounted attachments will not sit flat on ground.*

When loader mounting is complete, you will need to check front tire clearances and adjust tire track width as necessary. You will also need to verify tractor wheel and axle clearances and adjust steering stops accordingly to provide clearance between front tire and tractor hood and loader on full left and right turn with front axle fully oscillated. Be sure lift cylinders are fully retracted when checking tire clearances. Refer to tractor operator's manual for steering stop adjustment.

Reference to left and right used in these instructions refer to position when seated in the operating position on tractor.

### PREPARING TRACTOR

Shut off engine, engage brakes, and remove key during installation. If tractor is equipped with front weights, remove weights and remove weight bracket.

Remove plastic thread protectors from holes on left and right sides, and front of tractor.

**IMPORTANT:** Clean threaded holes in tractor chassis thoroughly using a tap of proper size. Paint, rust, or debris in the threads may not permit cap screws to be installed and tightened correctly

### INSTALLING MOUNTING BRACKETS (Figure 1)

**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.*

**NOTE:** *Support mid mounting brackets (3 & 4) when removing from shipping materials.*

1. Install front mounting bracket (1) using 16MM x 40MM cap screws (5) and 5/8 lock washers (8) in front holes and 16MM x 40MM cap screws (5), 5/8 lock washers (8) and 5/8 flat washers (9) in rear holes.

**NOTE:** *It may be necessary to use 5/8 flat washers (9) behind front mounting bracket to compensate for slope of front casting.*

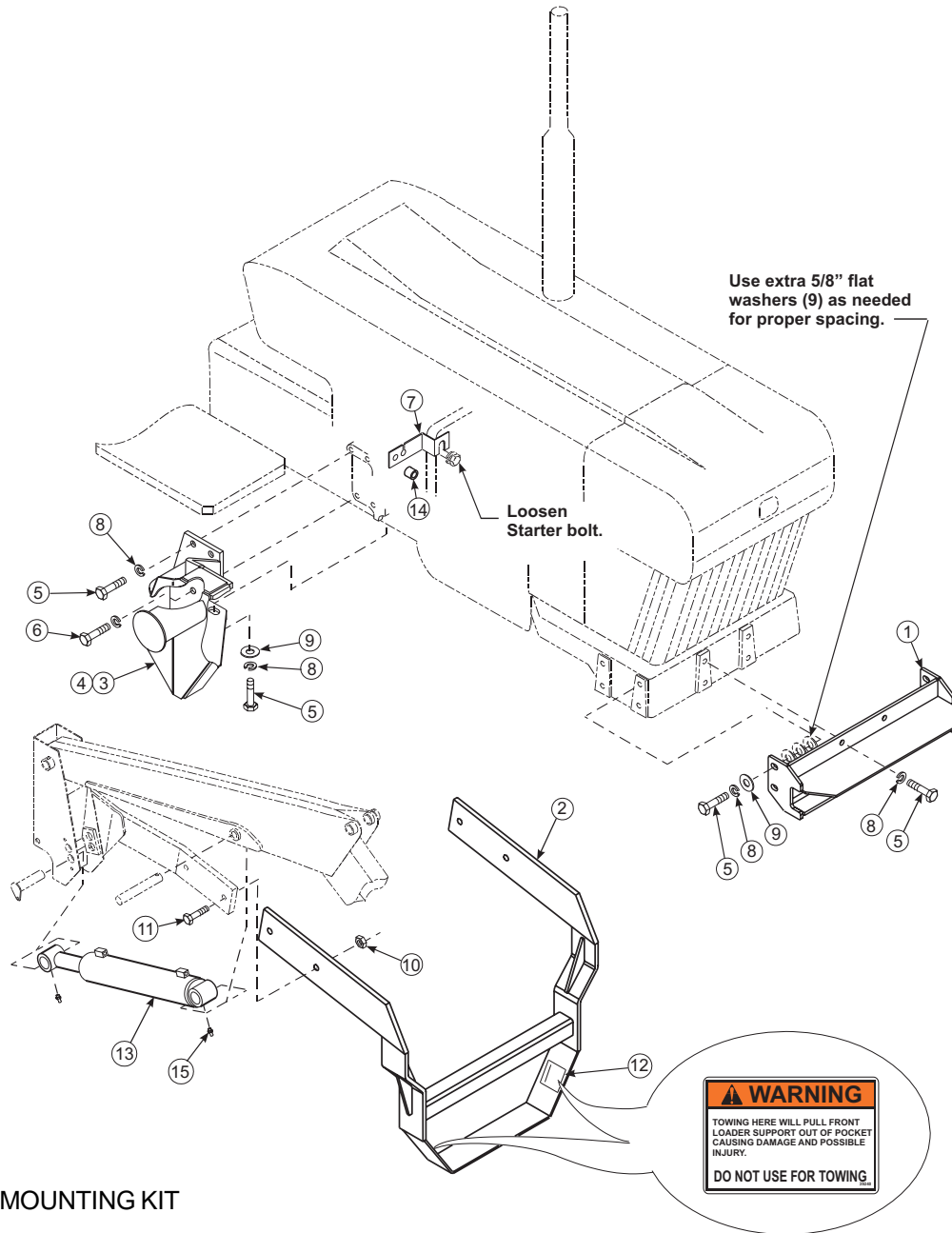
2. Remove throttle cable bracket by loosening starter bolt and sliding bracket upwards. Disconnect foot throttle shaft on both ends. Slide bracket off throttle shaft. Install grommet (16) onto extended cable mounting bracket (7). Install extended cable mounting bracket (7) by sliding down on starter bolt. Tighten starter bolt. Reinstall foot throttle shaft. Adjustments to foot throttle may be necessary.

**NOTE:** *Extended cable mounting bracket is needed to keep cables from interfering with right midmounting bracket.*

3. Install right and left midmounting brackets (3 & 4) using 16MM x 40MM cap screws (5) and 5/8 lock washers (8) in upper holes, 16MM x 70MM cap screws and 5/8 lock washers (8) in lower holes. Fasten 16MM x 40MM cap screws (5), 5/8 lock washers (8) and 5/8 flat washers (9) in bottom holes.

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Figure 1



PARTS LIST - MOUNTING KIT

ITEM	PART NO.	NH NO.	DESCRIPTION	QTY.
1	44633	SML44633	BRACKET, Front Mounting	1
2	44620	SML44620	YOKE Assembly	1
3	44625-2	SML446252	BRACKET, Midmounting, Right	1
4	44625-1	SML446251	BRACKET, Midmounting, Left	1
5	6090-1	09804271	SCREW, Cap, 16MM -1.5MM x 40MM	
6	6090-61	00120092	SCREW, Cap, 16MM-1.5MM x 70	4
7	44852	SML44852	BRACKET, Cable Extension	1
8	41837-7	00084057	WASHER, Lock, 5/8"	20
9	42502-12	00087365	WASHER, Flat, 5/8"	16
10	41840-8	09626598	NUT, Lock, 3/4"	4
11	41838-7	00970601	SCREW, Cap, 3/4" x 2-1/2	4
12	39240	SML39240	DECAL, "Warning - Do Not Tow..."	2
13	43129	SML43129	CYLINDER (JX) 2-3/8"	2
14	6079-11	SML607911	GROMMET, Extension Bracket	1
15	6075-4	SML60754	FITTING, Grease, 1/4", Straight	4

## REPLACING CYLINDERS



**WARNING:** To avoid injury during installation of quick attach loader, do not permit bystanders within ten feet of loader.

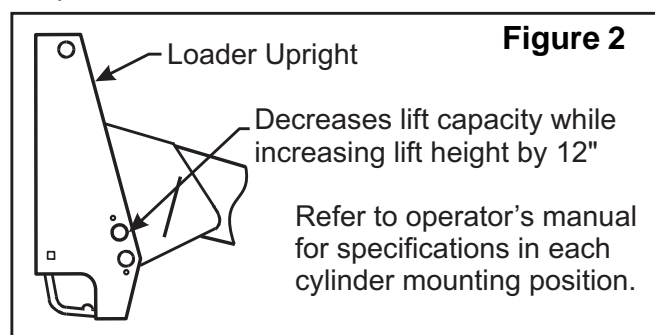
1. Install grease fittings (15) to each end of cylinders (13) with fitting pointed down.
2. Loop chain under each bucket cylinder and hook on loader boom arm.



**CAUTION:** Do not damage grease fitting on end of cylinder. Be sure chain does not pinch lift cylinder.

3. Using overhead hoist to support loader, disconnect and remove angle support strut and install 2 3/8" lift cylinders (13). Install lift cylinders (13), with base end toward front and hydraulic ports toward top, using hardware previously removed. See chart for optional cylinder placement.

**NOTE:** Pin rod end into loader upright first, then pin base end into loader boom.



4. Disconnect lift cylinder hoses one at a time from steel oil lines to avoid error when reconnecting.

**NOTE:** Lift cylinder hoses must be free to turn while they are being connected to lift cylinders.

5. Connect hoses to lift cylinders. Reconnect hoses to steel oil lines.

## MOUNTING LOADER TO TRACTOR (Figures 1, 3, 4, 5, 6, 7, 8 & 9)



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

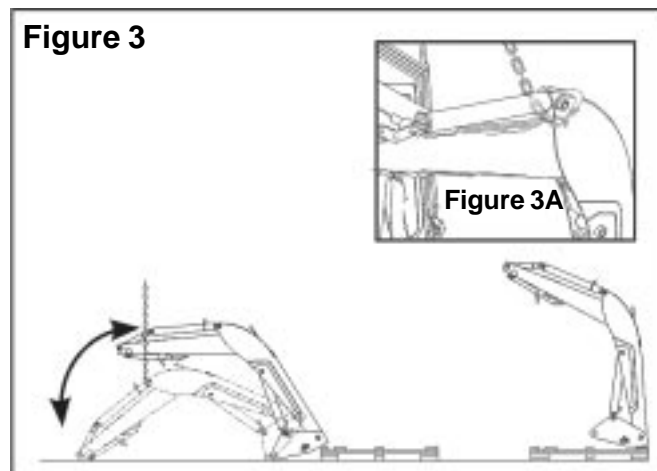


**WARNING:** To avoid injury during installation of quick attach loader, do not permit bystanders within ten feet of loader.

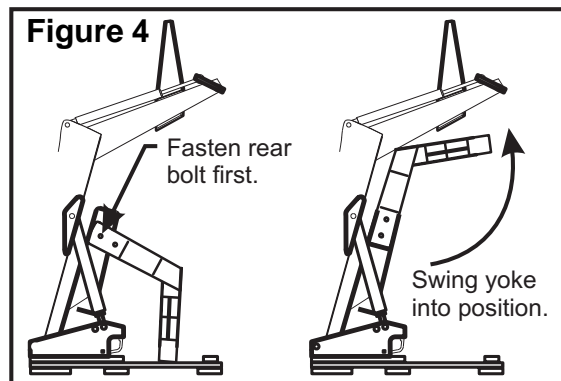


**WARNING:** To avoid injury during installation of quick attach loader, an overhead hoist must be used for initial mouniing. Installed lift cylinders will not support loader in upright position. Boom may fall causing serious personal injury. Parking stands are not operational without bucket or heavy attachment mounted. Bale spear or pallet fork alone do not provide enough weight.

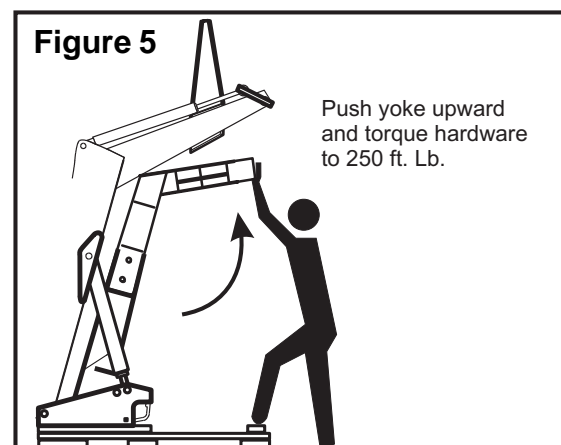
**Figure 3**



1. Install yoke assembly (2) using 3/4 x 2-1/2 cap screws (11) and 3/4 lock nuts (10). Install rear cap screws first and swing yoke into position, then install front cap screws.



**Figure 5**



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### MOUNTING LOADER TO TRACTOR (Continued)

**NOTE:** Push yoke upward and tighten hardware. Hardware for front mounting bracket and midmounting brackets should be snug but do not torque completely. After loader has been mounted to tractor and aligned with midmounting brackets and front mounting brackets, torque hardware to 238-262 ft. lb. (322 N•m).

2. Remove hardware securing loader to pallet. Using overhead hoist, lower loader from vertical shipping position to horizontal position (scraps of cardboard may be used to protect paint).
3. Install hose or valve kit to tractor and loader. Refer to assembly manual provided for installation instructions.
4. Position tractor close enough so plumbing can be connected to tractor. Shut off tractor engine and engage tractor brakes. Route hoses loosely to allow maximum reach. Reposition overhead hoist by looping nylon strap around yoke near loader side frames at balance point of loader.
5. Using overhead hoist, raise loader until side frame uprights will clear front tires. Remove lock nut and washer from loader hinge and swing each hinge open.

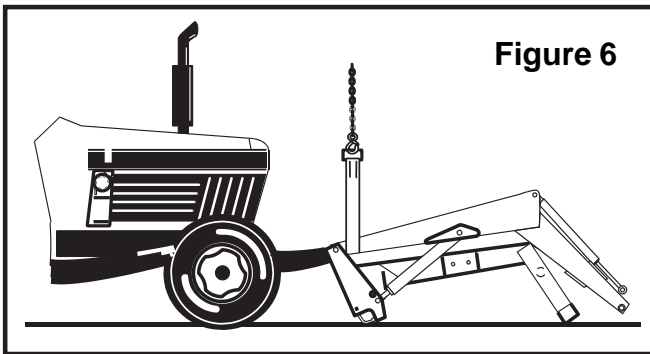


Figure 6

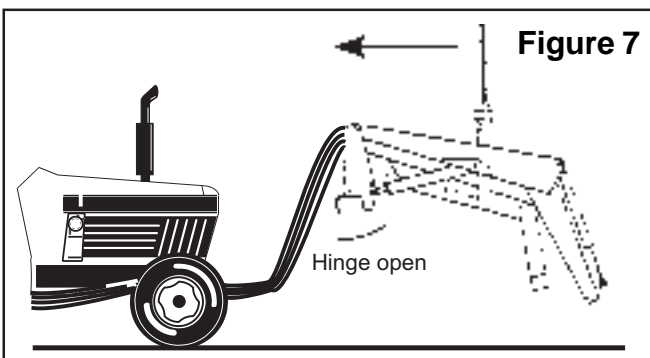


Figure 7

6. Position loader so hinges hook over mid mounting tubes and yoke tube fits inside front mounting bracket.
7. Clamp hinges to midmounting tubes with 3/4 flat washers and 3/4 flex-lock nuts (supplied with loader).

**IMPORTANT:** Be sure to use flex-lock nuts to clamp hinge. Tighten flex-lock nuts against hinge securely, but not to more than 125 ft.-lb. torque (167 N•m).

8. Adjust front wheel tread settings or steering stops, if necessary to prevent interference between tires and loader. Refer to tractor operator's manual for adjustment procedures.

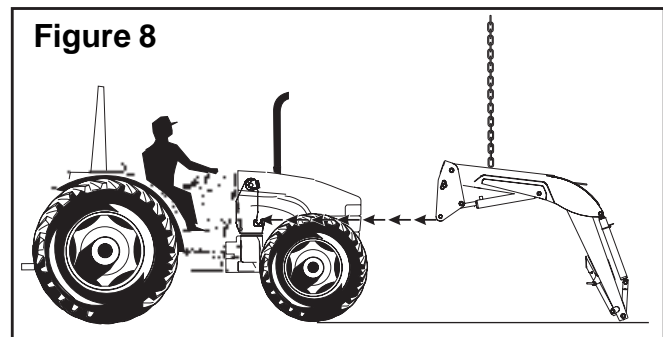


Figure 8

**NOTE:** It is important to attach lift cylinder hoses (yellow and green spiral band coded) 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 instruction 12)

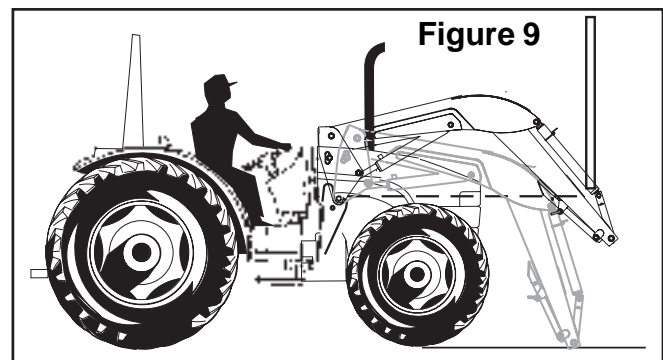


Figure 9

9. Attach tilt cylinder function hoses (color coded blue and red) to corresponding tractor quick couplers.
10. Start engine and fully extend and retract cylinders several times to purge air from hydraulic system. Replenish hydraulic system using tractor operators manual specified hydraulic oil.
11. Adjust front wheel tread settings or steering stops, if necessary, to provide a minimum 3/4" inch 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.



**WARNING:** Always have a bucket attachment mounted 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.

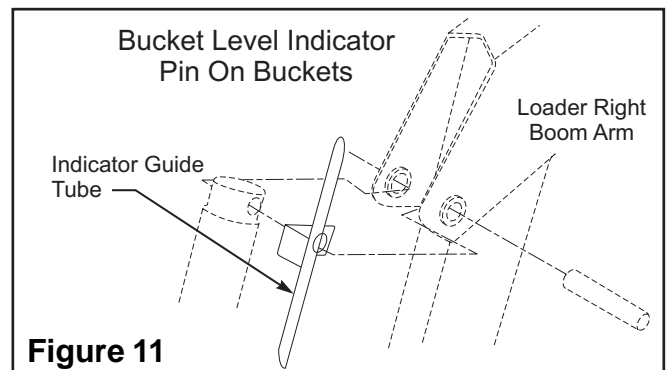
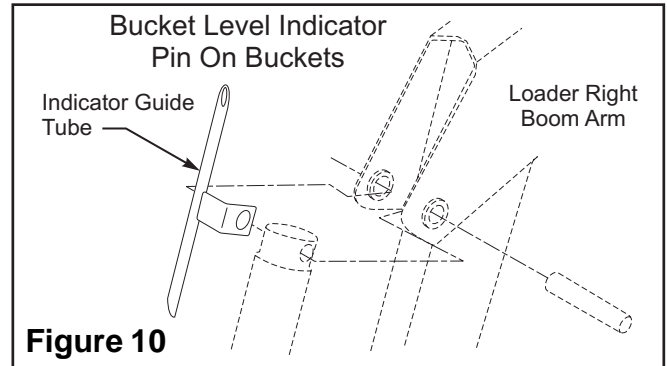
### ATTACH LEVEL INDICATOR FOR BUCKET OR ATTACHMENT (Figure 10, 11, & 12)

Refer to assembly instructions provided with bucket or optional attachments to attach level indicator rod.

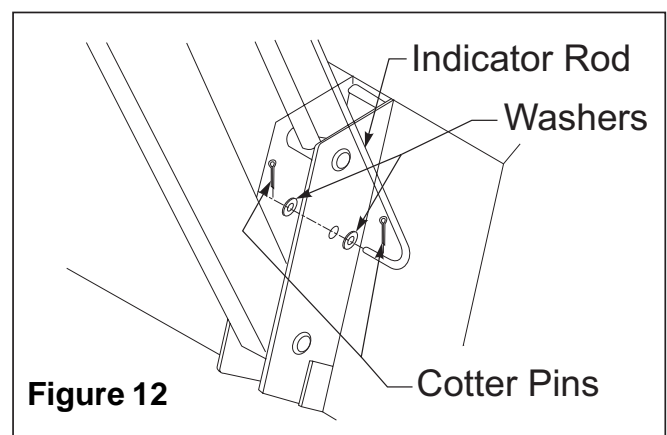
**NOTE:** Attachment level setting varies for each loader attachment. It is important to make sure level indicator is adjusted to indicate level whenever a different attachment is mounted, or else level indicator will not indicate true level.

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 U-bolt that fastens level indicator bracket to right tilt cylinder and position it so it is centered on the offset in level indicator rod, then retighten U-bolt hardware.

1. Attach indicator guide tube to cylinder pin. Guide tube is positioned to outside of boom for pin on attachments and inside of boom when quick attach device is used.



2. Slide bucket level indicator rod through guide tube. Attach other end of rod with 1/8 x 1 cotter pins and 3/8 flat washers. If pin on bucket is used, attach lower end of rod to bucket ear. If quick attach device is used, attach lower end of rod to quick attach device.



3. Locate tractor and loader on level surface. With bottom of bucket resting on surface, cut off excess rod flush with end of guide tube or paint exposed rod a contrasting color.

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**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><b>NOTE:</b> 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