

Keep With Operator's Manual

**INSTALLATION MANUAL  
1640/1645 LOADERS  
M5040, M6040, & M7040 KUBOTA TRACTORS**

MODEL	ROPS	WITH CAB
1640	X	
1645		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 and metric wrenches, torque wrench, and hydraulic oil.

Tractor-supplied hydraulic power is required for loader mounting and operation.

The grille guard (8) may be installed with or without the loader. Refer to instructions on page 2.

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.*

Set the tractor's Front Tread Width to 1420MM (55.9") on a 2WD machine or to 1520MM (59.8") on a 4WD tractor to provide adequate clearance. For better stability, set the rear tread to 1520MM (59.8").

Tractor steering stops may have to be adjusted to provide clearance between front tire 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.

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

**PREPARING TRACTOR**

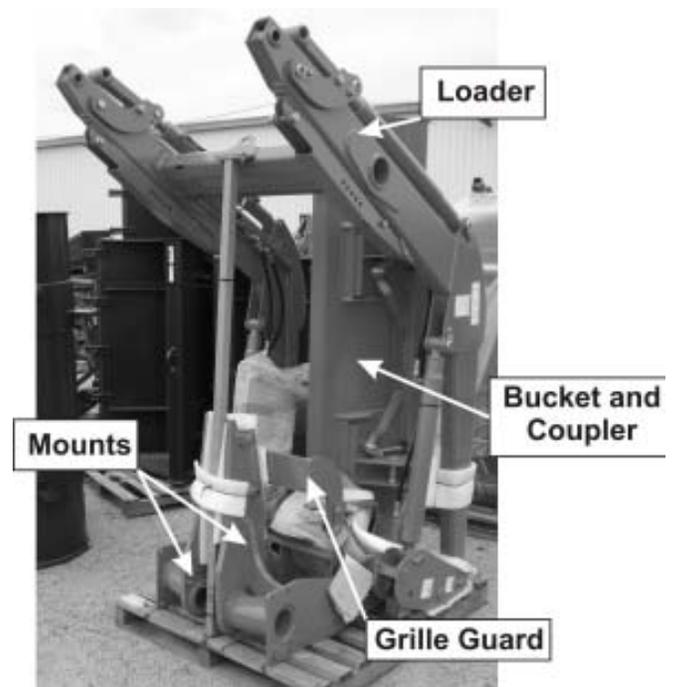
Shut off engine, engage brakes, and remove key during installation. If tractor is equipped with front weights, remove weights and weight bracket.

Remove plastic thread protectors from holes on left and right sides of tractor clutch housing and front axel.

**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.*

**PALLET COMPONENT REMOVAL  
(Figure 1)**

The loader boom, bucket, left and right mid mounts, hydraulic package, and grille guard come on one pallet. Remove plastic protective cover from pallet. Untie and remove grille guard from pallet. Support mid mounting brackets and untie and remove from pallet. Remove hydraulic box of parts from pallet. Support bucket then remove hold downs and remove from pallet.



**Figure 1 - Loader Shipping Example**

**NOTE:** Support mid mounting brackets when removing from shipping materials.



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

Support loader boom arms with lifting device and nylon straps. Lift loader slightly to remove load from support post and remove it.

Lower loader boom onto ground, positioning scraps of cardboard on floor under loader to prevent loader paint damage. Remove Pallet.

**NOTE:** Do not tighten hardware to full torque until the mounting kit is completely assembled unless otherwise noted. This will allow proper assembly and alignment of parts as they are installed. Before finally tightening all mounting hardware, start the engine and apply downward pressure to the loader bucket, removing the load from the front tires (Do not lift tires off the ground!). Make sure the mounting pins can be rotated easily.

### INSTALLING GRILLE GUARD (Figure 3)

1. Position grille guard on front of tractor.
2. Secure with Hex Bolts M16X45MM (24) and M16 Lockwashers (26).
3. Torque bolts after all have been installed using General Torque Specifications. (See page 12)

### INSTALLING LEFT AND RIGHT MIDMOUNTING BRACKETS (Figure 3)

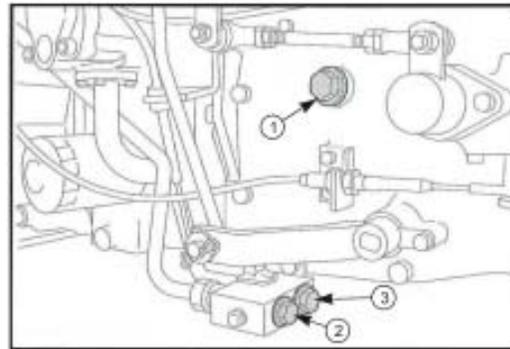
1. Lift right mid mounting bracket (1) with overhead hoist. Fasten right mid mounting bracket (1) to tractor casting and front axle housing using HHCS M20 x 55MM (26) and M20 lockwashers (27).
2. Raise left mid mounting bracket (2) with overhead hoist. Fasten left mid mounting bracket (2) to tractor casting and front axle housing using HHCS M20 x 55MM (26) and M20 lockwashers (27).

### ATTACHING VALVE AND VALVE BRACKET TO TRACTOR (Figure's 2, 3, & 8)

1. Attach valve bracket (6) to tractor frame on the right side underneath cab using HEXB 12-30MM bolts (22), and M12 spring lockwashers (23).

**NOTE:** Make sure there is adequate clearance between valve mounting bracket and the linkage that runs behind it.

2. Install hose coupler holder, (3, 4, & 5), to RH mounting bracket using two HEXB Metric 10-30MM (17), two Spring Lockwashers M10, and two 10MM-1.5 Metric Nuts (21)..(See Figure 3)
3. Attach valve (22) to valve bracket (6) using HEXB 8-50MM bolts (12), M8 lockwashers (14), and HEX nuts 8MM (15). (See Figure 3 & 8)
4. Connect the four 3/8" x 26" hoses (18) to the four top ports on the control valve (8B). Install dust plugs, (35), on the free ends of hoses per Chart 1 on page 4. Assemble female quick couplers, (26). Attach to the appropriate port location in hose coupler holder.(See Figure 8 - A, B, C, & D)

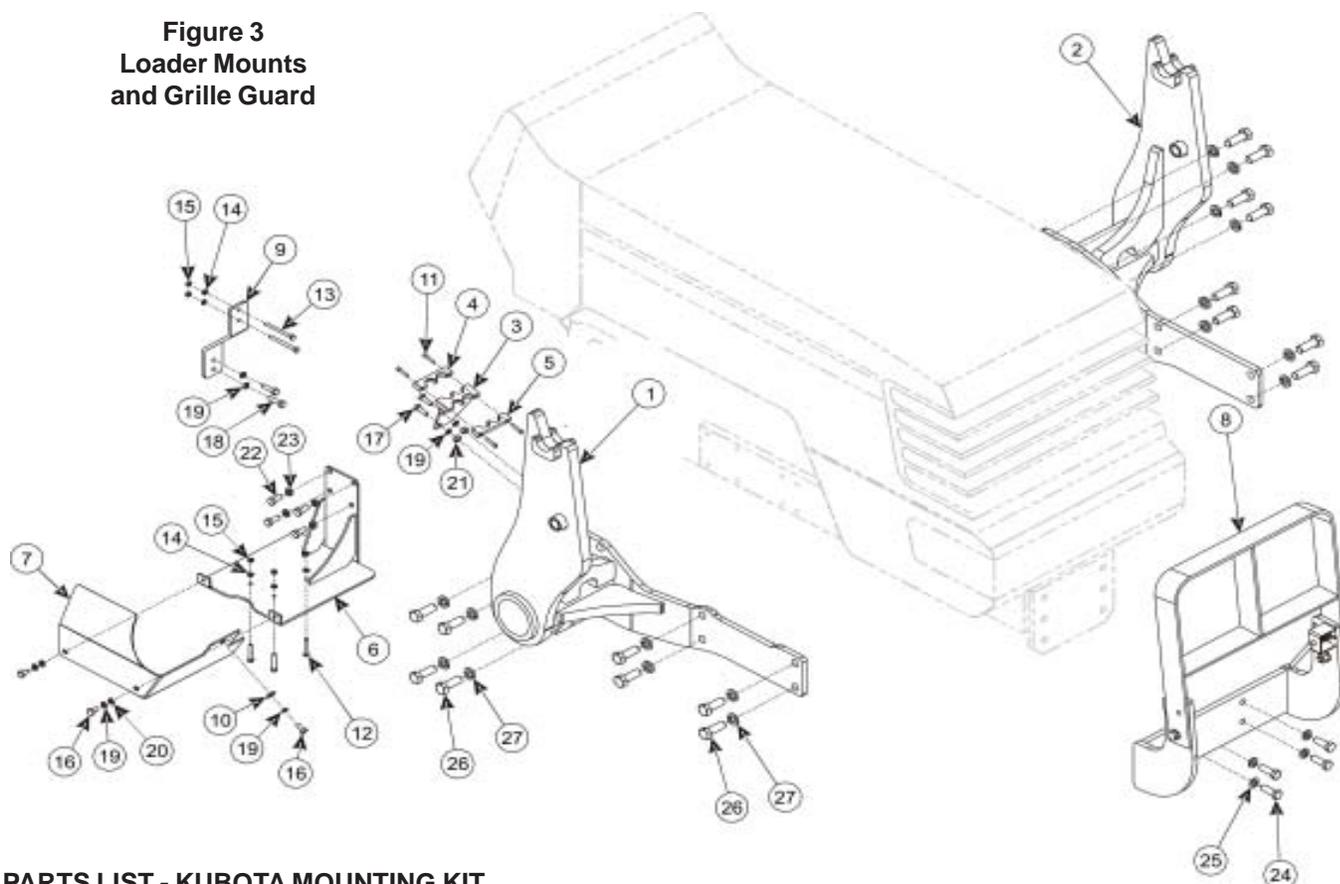


(1) Tank Port  
(2) Power Beyond Port  
(3) Pump Port

**Figure 2  
Hydraulic Block**

5. Remove plugs from pressure, tank and power beyond ports of tractor hydraulic block. (See Figure 2). Install adapter fittings (27,28,& 29) to pressure, tank and power beyond ports in tractor and tractor hydraulic block. (See Figure 8)
6. Route hoses (19, 20, & 21) from valve, down along valve mounting bracket, under tractor platform and up to tractor hydraulic block. Connect power beyond hose (19) to power beyond port in tractor hydraulic block. Connect pressure hose (21) to pressure port in tractor hydraulic block. Connect tank hose (20) to tank port on tractor. (See Figure 8)

**Figure 3**  
**Loader Mounts**  
**and Grille Guard**

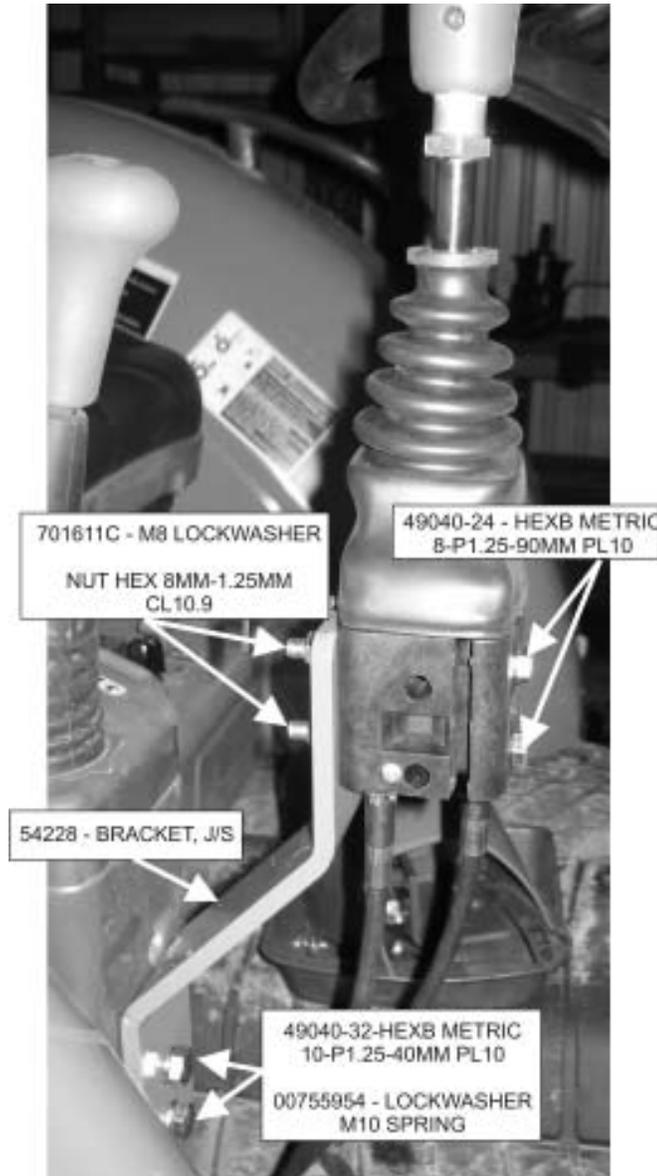


**PARTS LIST - KUBOTA MOUNTING KIT**

ITEM	PART NO.	DESCRIPTION	QTY.
1	54220	WDMT,RHMID MOUNT-1640 KTC	1
2	54221	WDMT,LH MID MOUNT-1640 KTC	1
3	54222	HOSE COUPLER HOLDER	1
4	54223	HOSE COUPLER HOLDER, BLOCK, 12 MM THICK	1
5	54224	HOSE COUPLER HOLDER, BLOCK, 12 MM THICK	1
6	54225	WDMT,CONTROL VALVE BRACKET	1
7	54226	CONTROL VALVE SHIELD	1
8	54227	WDMT,GRILLE GUARD	1
9	54228	BRACKET, J/S	1
10	54275	WASHER, 4MM THICK	1
11	49040-30	BOLT, M6 X 30 MM	4
12	49040-23	HEXB METRIC 8-P1.25-50MM PL10	3
13	49040-24	HEXB METRIC 8-P1.25-90MM PL10	2
14	701611C	M8 LOCKWASHER	5
15	54133-3	NUT HEX 8MM-1.25MM CL10.9	5
16	49040-25	HEXB METRIC 10-P1.25 20MM PL10	3
17	49040-31	HEXB METRIC 10-P1.25-30MM PL10	2
18	49040-32	HEXB METRIC 10-P1.25-40MM PL10	2
19	00755954	LOCKWASHER M10 SPRING	7
20	701512C	M10 FLATWASHER	2
21	54133-1	NUT METRIC 10MM-1.5 PL10.9	2
22	49040-40	HEXB METRIC 12-P1.25-30MM PL10	4
23	701613C	LOCKWASHER M12 SPRING	4
24	49040-41	HEXB METRIC 16-P1.5-45MM PL10	4
25	701615C	M16 LOCKWASHER	4
26	49040-33	MOUNT BOLTS	16
27	48093-2	LOCKWASHER M20	16

**MOUNTING JOYSTICK TO TRACTOR  
(FIGURES 3, 4, & 8)**

1. Remove existing screws from the front of the gearshift case. Install Joystick Mounting bracket, (Figure 3, #9), using M10-1.25 x 40mm Hex Bolts and M10 Lockwashers. (See Figure 4).



**Figure 4 - Joystick Installation**

2. Locate the 40mm hole in the tractor platform directly below the joystick. Put two perpendicular slices in the rubber platform mount directly over the 40 mm hole approximately 50mm-60mm in length. Route the two Joystick cables through the slits in the rubber mat and the 40 mm hole in the tractor's platform.

3. Mount Joystick (32) to Joystick Mounting bracket (9), using M8-1.25 x 90 mm Hex Bolts (13), M8 Lockwashers (14), and M8-1.25 Hex Nuts (15). (See Figures 3 & 10)
4. Route cables under tractor platform to the control valve, taking care to avoid sharp edges or interference with other components or linkages. Attach cables to Control Rods which extend out of the control valve body. Make sure the Joystick is functioning properly by moving the Joystick and noting a corresponding motion in the Control Valve Control rod.
5. Install Valve Cover Shield, (7) to the Valve Mounting Bracket using M10-1.25 x 20mm Hex Bolts (16), M10 Lockwashers (19). (See Figure 3)

**PLUMBING LOADER  
(Figure 8 )**

1. Assemble adapter fittings (23) to boom oil tubes, starting from the bottom tube (5). Loosening the closest oil line clamp may ease installation of these fittings and hoses. Connect hoses (17) to the adapter fittings, again starting from the bottom tube (5).
2. Install dust caps (36) onto the free end of the hoses, making sure that the color codes shown in chart 1 below.

**CHART 1**

Port Identification	
Port #1 - Red,	Tilt Cylinder Rod End
Port #2 - Blue,	Tilt Cylinder Base End
Port #3 - Black,	Lift Cylinder Rod End
Port #4 - Yellow,	Lift Cylinder Base End

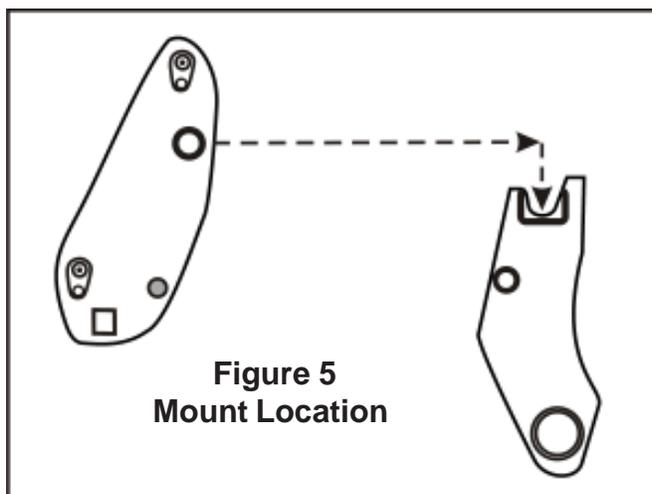
3. Install male quick couplers (25) onto hoses and cap with dust caps.
4. Slide sleeve (34) over the four hoses and connect the sleeve to the steel oil lines on the boom.

**MOUNTING LOADER TO TRACTOR  
(Figures 5 & 6)**



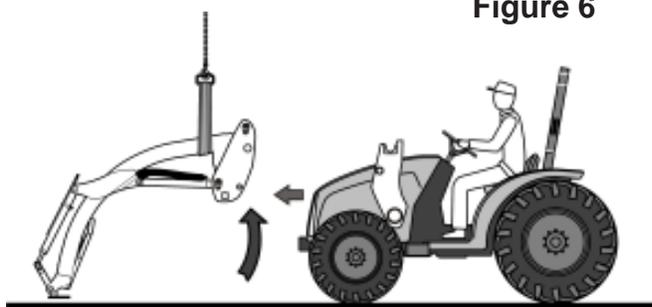
**WARNING:** To avoid injury during installation of quick attach loader, an overhead hoist must be used for initial mounting, do not permit bystanders within ten feet of loader. Parking stands are not operational without bucket or heavy attachment mounted. Bale spear or pallet fork alone do not provide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

1. Secure a hoist strap around loader upper boom arms and slowly raise loader with overhead hoist until loader uprights are slightly higher than mounts on the tractor. Make sure loader is centered with the tractor.
2. Start tractor, release brakes, and drive tractor forward until mounts are touching. Engage brakes and shut off tractor.
3. With overhead hoist, lower loader until loader upright mounts are seated in saddle of tractor mounts. Connect hydraulic hoses to correct ports. (See Chart 1)



**Figure 5**  
**Mount Location**

4. Start tractor and extend lift cylinders, rotating the loader upright until the lower connector pin holes line up with holes in tractor mount. Shut off tractor and engage brakes. Insert both lower connection pins and safety lynch pins.



**Figure 6**

#### ATTACHING BUCKET TO LOADER (Figure 9)

**WARNING:** To avoid injury during installation of bucket, do not allow bystanders within 10 feet of loader and bucket.

1. Locate tractor and bucket on level ground. Lower boom to the ground and extend the bucket cylinders slightly while raising the boom to provide 3" to 5" of ground clearance. Drive tractor forward to the bucket, aligning the loader's quick attach device with the pockets on the back of the bucket.
2. While driving forward slowly to maintain contact with the bucket, lift the bucket and tilt it back until the loader's quick attach device is seated in the bucket pockets. (See Figure 9)
3. Shut off tractor engine, set park brake. Move the bucket latching handles on the loader's quick attach device down to the Latch position.
4. Start tractor and activate lift cylinders to raise bucket one or two feet. Tilt the bucket downward so that the latching mechanism is visible and inspect to make sure the pins are engaged through the latch plate on the back of the bucket. Lower the bucket to the ground and back up slowly with slight downward pressure on the bucket to make sure it remains attached.
5. Before finally tightening all mounting hardware, retract the bucket so the bottom is level with the ground and lower the bucket to the ground to apply downward pressure until the load is taken off the tractor's front tires.

**NOTE:** Do not lift the tractor tires off the ground. While pressure is applied, make sure the loader mounting pins can be rotated easily.

6. Tighten all remaining hardware to the torque level shown in the General Torque Specification Chart at the end of this document.

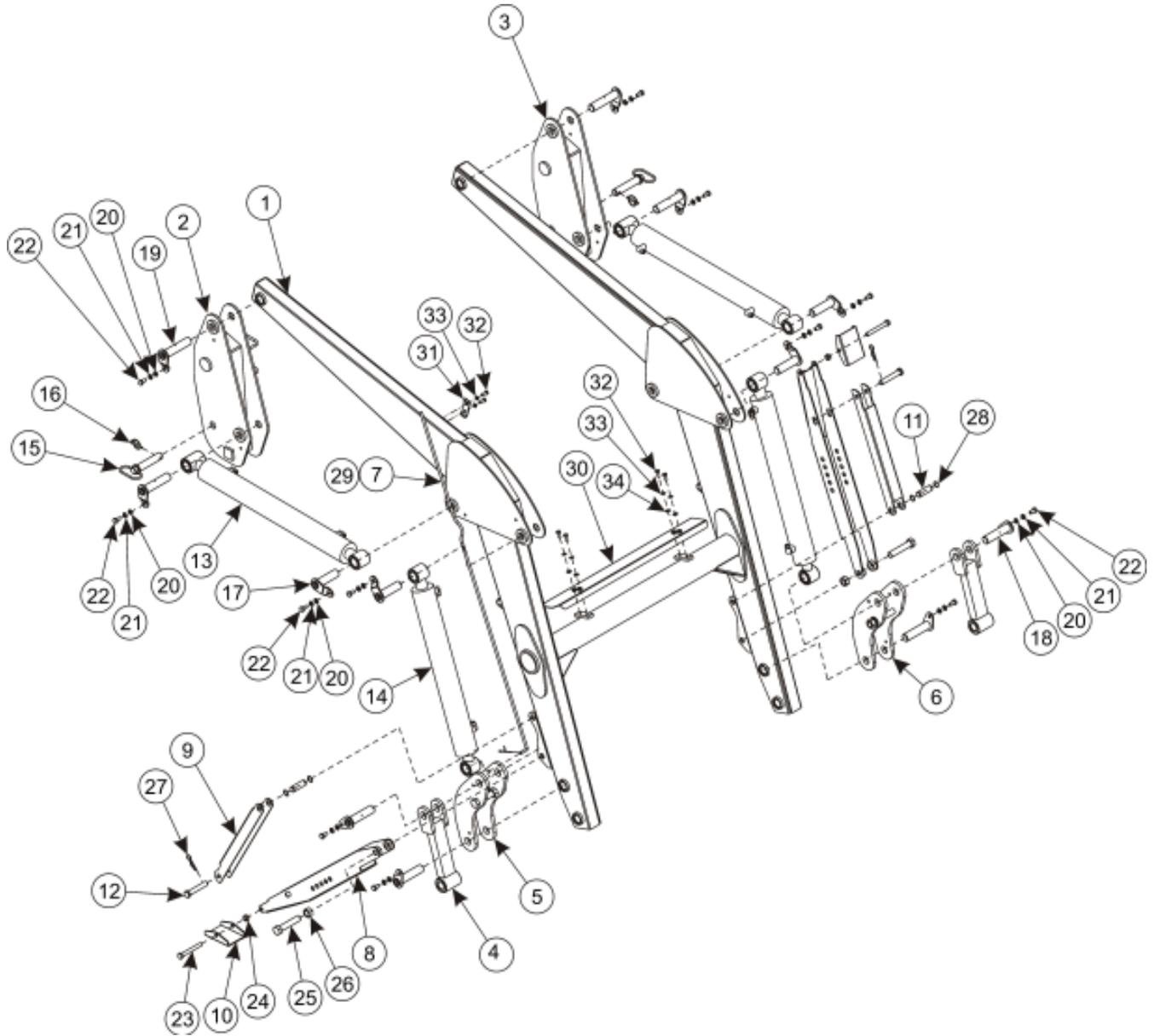
#### PRE-OPERATION CHECK

1. Adjust front wheel tread setting stops, if necessary, to provide a minimum 3/4" clearance between front tires and any part of loader with lift cylinders fully oscillated. Be sure lift cylinders fully retracted. Refer to page 1, under preparing tractor. Refer to tractor operator's manual for tread setting and steering stop adjustment procedures.
2. Lubricate all grease fittings with SAE multipurpose grease.
3. Check hydraulic fluid level in tractor. Fill to recommended level, using oil specified in tractor operators manual.

## PARTS LIST - LOADER

ITEM	PART NO.	DESCRIPTION	QTY.
1	54201	BOOM	1
2	54202	WDMT, RH SIDE FRAME	1
3	54203	WDMT, LH SIDE FRAME	1
4	54204	WDMT, COUPLER	2
5	54205	WDMT, BRKT RH	1
6	54206	WDMT, BRKT LH	1
7	54207	ROD, LEVEL INDICATOR	1
8	54208	STAND	2
9	54209	LINK-STAND	2
10	54210	SUPPORT, BASE	2
11	54211	PIN, 20 MM DIA	2
12	54212	PIN, 25 MM DIA	2
13	54213	CYLINDER, HYD BOOM	2
14	54214	CYLINDER, HYD BUCKET	2
15	54126	PIN, LEVER	2
16	54123	PIN, LINK	2
17	54215	PIN, 28 MM DIA	4
18	54216	PIN	4
19	54217	PIN	4
20	701512C	M10 FLATWASHER	12
21	007755954	M10 LOCKWASHER	12
22	49040-25	HEXB METRIC 10-PI.5-20MM PL10	12
23	49040-38	HEXB METRIC 12-PI.75-100MM PL10	2
24	54134-1	NUT, LOCK MET 20MM-2.5 PL10.9	2
25	49040-39	HEXB METRIC 20-P2.5-100MM PL10	2
26	54134-3	NUT, LOCK MET 20MM-2.5 PL10.9	2
27	54127	PIN,R	2
28	54122	RING, SNAP	4
29	54218	PIN, SPLIT 3MM X 25MM LONG	1
30	54219	COVER, TUBE	1
31	54073	COVER	1
32	49040-29	HEXB METRIC 8-P1.25-125MM PL10	6
33	701611C	M8 LOCKWASHER	6
34	701511C	M8 FLATWASHER	4

**Figure 7**  
**Loader Boom**  
**Assembly**



## PARTS LIST - HYDRAULICS

ITEM	SMC NO.	DESCRIPTION	QTY.
1	54229	TUBE, HYDRAULIC LINE (TCR)	1
2	54230	TUBE, HYDRAULIC LINE (LCR)	1
3	54231	TUBE, HYDRAULIC LINE (LCB)	1
4	54232	TUBE, HYDRAULIC LINE (TCB)	1
5	54233	TUBE, HYDRAULIC LINE (TCB)	1
6	54234	TUBE, HYDRAULIC LINE (LCB)	1
7	54235	TUBE, HYDRAULIC LINE (LCR)	1
8	54236	TUBE, HYDRAULIC LINE (TCR)	1
9	54237	ASY, HYDRAULIC HOSE, 5/16" x 20" (LCB)	1
10	54238	ASY, HYDRAULIC HOSE, 5/16 x 42" (LCR)	1
11	54278	ASY, HYDRAULIC HOSE, 5/16 x 42" (LCR)	1
12	54240	ASY, HYDRAULIC HOSE, 5/16 x 20" (LCB)	1
13	54089	ASY, HYDRAULIC HOSE, 5/16 x 14" (TCB)	1
14	54241	ASY, HYDRAULIC HOSE, 5/16 x 20" (TCB)	1
15	54242	ASY, HYDRAULIC HOSE, 5/16 x 24" (TCR)	1
16	54243	ASY, HYDRAULIC HOSE, 5/16 x 17" (TCR)	1
17	54244	ASY, HYDRAULIC HOSE, 3/8" x 58"	4
18	54245	ASY, HYDRAULIC HOSE, 3/8" x 26"	4
19	54246	ASY, HYDRAULIC HOSE PRESSURE	1
20	54247	ASY, HYDRAULIC HOSE TANK	1
21	54248	ASY, HYDRAULIC HOSE POWER BEYOND	1
22	54626	VALVE, CONTROL	1
23	54113	ADAPTER, HYD. 6MJ	8
24	54114	ADAPTER, HYD. TEE - 6J	4
25	54249	COUPLER, MALE QUICK	4
26	54250	COUPLER, FEMALE QUICK	4
27	54251	FITTING, HYD O-RING "P" PORT	1
28	54252	FITTING, HYD O-RING "P/B" PORT	1
29	54253	FITTING, HYD O-RING "T" PORT	1
30	54254	FITTING, HYD O-RING	4
31	54255	FITTING, HYD O-RING ELBOW	3
32	54256	CONTROL HANDLE ASSY, VALVE	1
33		Coupler Holder Assembly. See #3, #4, and #5 in Mounting Kit Parts List	1
34	34853-31	SLEEVE, 2-3/8" x 46"	1
35		DUST PLUG, (Male Couplers)	4
36		DUST CAP, (Female Couplers)	4

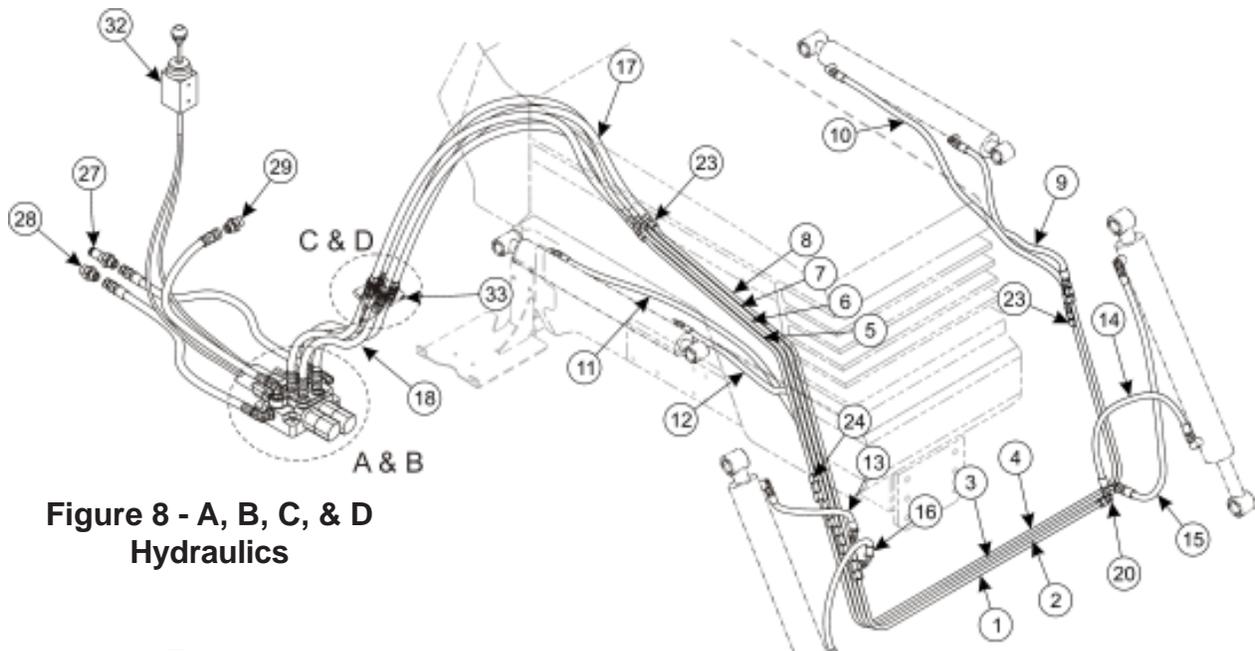
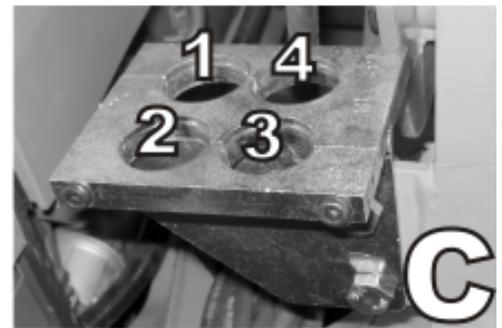
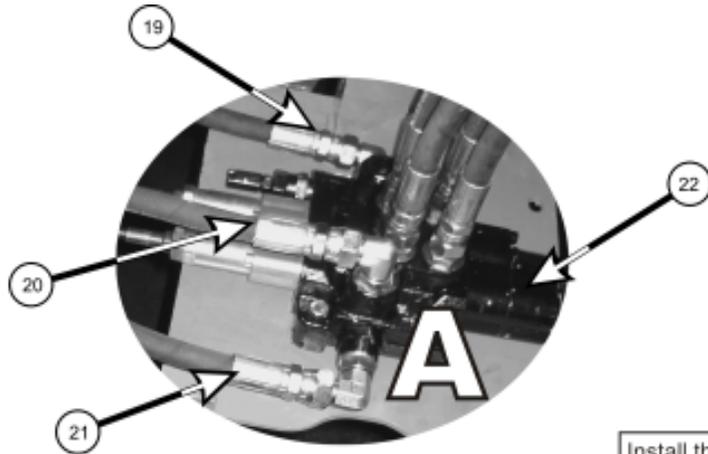
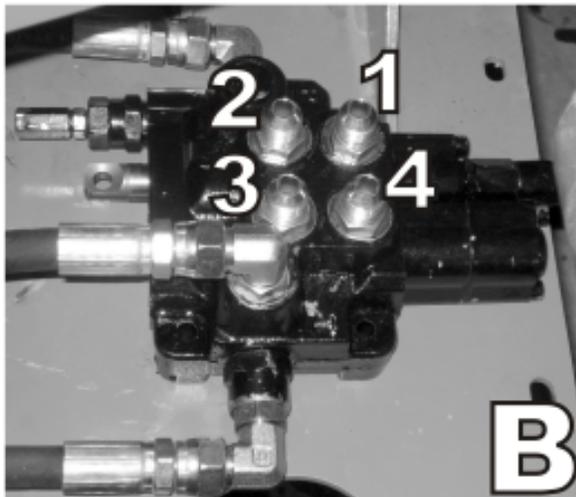


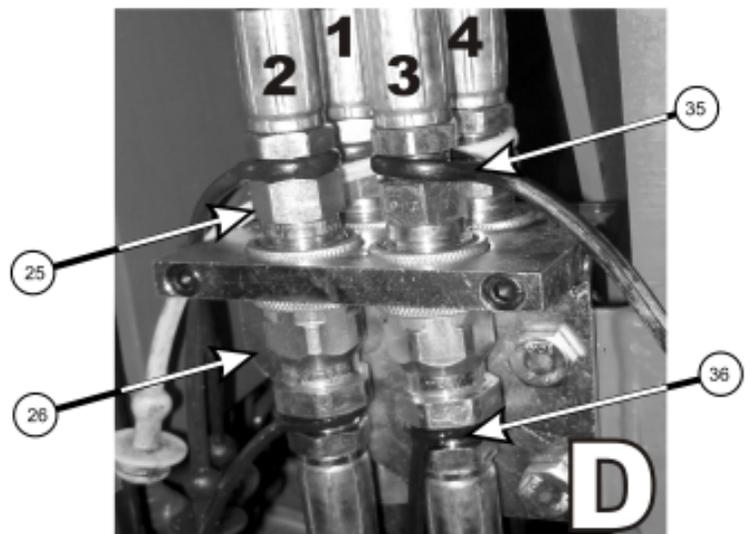
Figure 8 - A, B, C, & D  
Hydraulics



Install the Hydraulic hoses (18), from the valve (22), with female couplers (26), to the Hose Coupler Holder (33). Then connect hoses from the loader (17), with male couplers (25), to their respective female couplers (26) in the hose coupler holder (33). The Hose Coupler Holder is directly above the valve mounted to the right loader mount. The hoses from the valve (18) when installed to the coupler holder match-up to the hoses coming from the loader: 1 to 1, 2 to 2 and so on. (See photos B, C, & D)

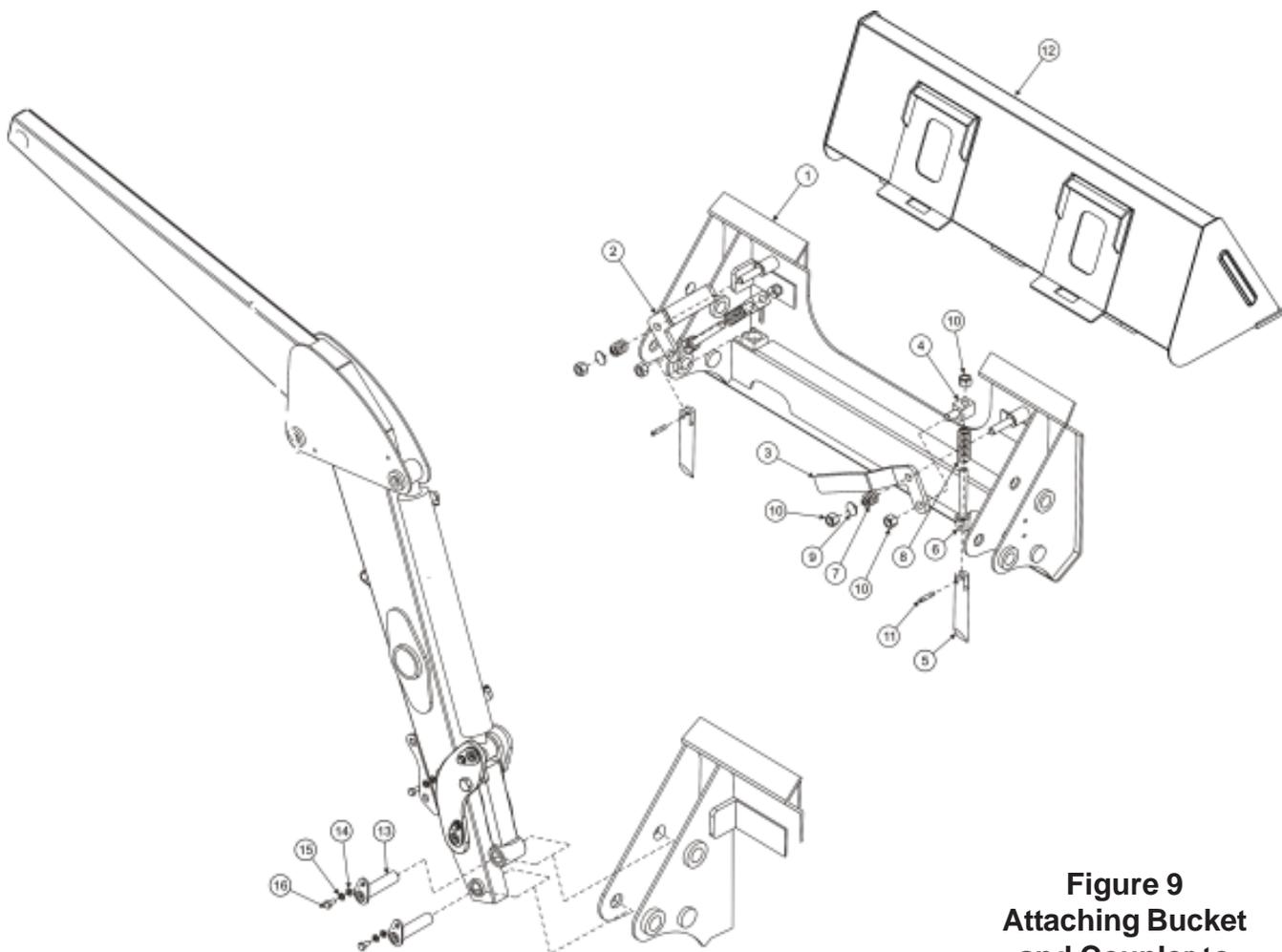


- 1. RED, 3/8" x 26" (Tilt Cylinder Rod end)
- 2. BLUE, 3/8" x 26" (Tilt Cylinder Butt end)
- 3. BLACK, 3/8" x 26" (Lift Cylinder Rod end)
- 4. YELLOW, 3/8" x 26" (Lift Cylinder Butt end)



**PARTS LIST - Coupler & Bucket**

ITEM	PART NO.	DESCRIPTION	QTY.
1	54267	WDMT, COUPLER	1
2	54071	LEVER, RH QH	1
3	54072	LEVER, LH QH	1
4	54130	PIN, 30MM DIA X 30MM L	2
5	54131	PIN, 30MM DIA	2
6	54132	PIN, 30MM DIA	2
7	54119	SPRING, 5MM DIA	2
8	54120	SPRING, 4.55MM DIA	2
9	701515C	M16 FLATWASHER	2
10	54134-2	NUT, LOCK MET 16MM-2.0 PL10.9	6
11	54121	PIN, SPRING 8MM DIA X 40MM L	2
12	54268	WDMT, 74" BUCKET SS QT - 1640	1
13	54216	PIN	4
14	701512C	M10 FLATWASHER	12
15	007755954	M10 LOCKWASHER	12
16	49040-25	HEXB METRIC 10-PI.5-20MM PL10	12



**Figure 9  
Attaching Bucket  
and Coupler to  
Loader**

## 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 molysulphide 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