

USMOWER

OPERATOR'S MANUAL

QA60 QA72

**SKID STEER
ROTARY MOWER**



11949 WESTAR LN
BURLINGTON, WA 98233
360.757.7555

WWW.USMOWER.COM

Creating Mowing Solutions Manufactured in the USA



US MOWER ROTARY AND FLAIL MOWERS FOR EXCAVATOR AND SKID STEERS ARE USED BY COMMERCIAL MOWERS FOR INDUSTRIAL MOWING APPLICATIONS INCLUDING LAND CLEARING, PIPELINE MAINTENANCE, DITCH MAINTENANCE AND GENERAL HERBICIDE FREE VEGETATION MANAGEMENT. WE OFFER ROTARY MOWERS AND FLAIL MOWERS FOR BOTH SKID STEERS AND EXCAVATORS AS WELL AS COMPLETE TRACTOR INTEGRATED MOWERS FOR CASE, JOHN DEERE, NEW HOLLAND, CHALLENGER AND MCCORMICK. US MOWER EQUIPMENT IS MANUFACTURED TO HAVE A LONG, PRODUCTIVE SERVICE LIFE. MANY CONTRACT MOWERS HAVE REPORTED 5,000 OR MORE HOURS OF WORKING TIME ON THEIR MOWING EQUIPMENT. THE VERY FIRST FLAIL MOWER BUILT IN 1999 IS STILL IN USE TODAY.

ALL US MOWER FLAIL MOWERS AND ROTARY MOWERS ARE DESIGNED AND MANUFACTURED IN BURLINGTON, WA. FROM IDEA TO FINISHED PROJECT, IT ALL HAPPENS RIGHT HERE IN OUR USA FACTORY. EACH DESIGN FEATURE, MATERIAL AND COMPONENT IS CAREFULLY SELECTED TO PROVIDE THE BEST PERFORMANCE AND VALUE TO OUR CUSTOMER. WE KNOW THAT A FLAIL OR ROTARY MOWER IS A BIG INVESTMENT TO OUR CUSTOMER, SO WE MAKE IT FROM HIGH STRENGTH STEEL, DOM TUBING, AND OTHER HIGH QUALITY MATERIALS AND COMPONENTS. WE ALSO SERVICE AND STOCK EACH COMPONENT TO BUILD THE MOWERS AND OUR CUSTOMERS CAN PURCHASE THEM DIRECT FROM US MOWER OR ONE OF OUR FANTASTIC DEALERS LOCATED THROUGHOUT THE USA AND CANADA. BECAUSE WE ARE A FABRICATING MANUFACTURER, WE CAN ALSO MAKE CUSTOM MOUNTS, A VARIETY OF OPTIONS AND SPECIAL REQUESTS.



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FAILING TO FOLLOW SAFETY MESSAGES AND OPERATING INSTRUCTIONS CAN CAUSE SERIOUS BODILY INJURY OR EVEN DEATH TO THE OPERATOR OR OTHERS IN THE AREA. YOUR MOWER IS A POWERFUL INDUSTRIAL MACHINE WITH SUBSTANTIAL CAPACITY TO CAUSE PROPERTY DAMAGE, PERSONAL INJURY OR EVEN DEATH WHEN USED IMPROPERLY OR WITHOUT PROPER SAFETY EQUIPMENT.

BEFORE YOU START!!

READ THE SAFETY MESSAGES ON THE IMPLEMENT AND IN YOUR MANUAL. US MOWER HAS DESIGNED THIS IMPLEMENT TO BE USED WITH ALL ITS SAFETY EQUIPMENT PROPERLY ATTACHED TO MINIMIZE THE CHANCE OF INJURY IN THE EVENT OF AN ACCIDENT. THERE IS NO SUBSTITUTE FOR AN INFORMED, CAUTIOUS, SAFE-MINDED OPERATOR WHO RECOGNIZES POTENTIAL HAZARDS AND FOLLOWS GOOD SAFETY PRACTICES.

- STUDY OPERATOR'S MANUALS AND SAFETY DECALS FOR SKID STEER AND CUTTER THOROUGHLY TO PREVENT MISUSE, ABUSE AND ACCIDENTS.
- DO NOT ALLOW RIDERS ON SKID STEER OR IMPLEMENT. FALLING OFF MAY CAUSE SERIOUS INJURY OR DEATH BY BEING RUN OVER BY SKID STEER OR CUTTER. KEEP CHILDREN AWAY!
- OPERATE WITH ROPS AND FASTENED SEAT BELT TO PREVENT INJURY AND POSSIBLE CRUSHING DEATH FROM FALLING OFF OR SKID STEER OVERTURN.
- WEAR HARD HAT AND SAFETY GLASSES FOR PERSONAL PROTECTION.
- MAKE CERTAIN THAT SMV SIGN, WARNING LIGHTS AND REFLECTORS ARE CLEARLY VISABLE.
- BLOCK UP OR SUPPORT CUTTER SECURELY BEFORE PUTTING HANDS OR FEET UNDER OR WORKING UNDERNEATH LIFTED COMPONENTS TO PREVENT CRUSHING INJURY OR DEATH FROM SUDDEN, INADVERTENT DROPPING. MAKE CERTAIN AREA IS CLEAR BEFORE LOWERING.
- FOLLOW LOCAL TRAFFIC CODES. SLOW DOWN AT NIGHT, IN TURNS, AND ON HILLSIDES.
- BEFORE DISMOUNTING, SECURE IMPLEMENT IN TRANSPORT POSITION OR LOWER TO GROUND. DISENGAGE INTERLOCK, TURN OFF MACHINE. NEVER MOUNT OR DISMOUNT A MOVING VEHICLE TO PREVENT CRUSHING INJURY OR DEATH.

THERE ARE OBVIOUS AND HIDDEN POTENTIAL HAZARDS INVOLVED IN THE OPERATION OF THIS MOWER. SERIOUS INJURY OR DEATH MAY OCCUR UNLESS CARE IS TAKEN TO INSURE THE SAFETY OF BOTH THE OPERATOR AND OTHER PERSONS IN THE AREA. THE FOLLOWING IS A LIST OF SOME SAFEGUARDS WHICH SHOULD BE FOLLOWED.

IN ADDITION TO THE DESIGN AND CONFIGURATION OF EQUIPMENT, HAZARD CONTROL AND ACCIDENT PREVENTION ARE DEPENDENT UPON AWARENESS, CONCERN AND PRUDENCE. SUITABLE TRAINING OF PERSONNEL INVOLVED IN THE OPERATION, TRANSPORT, MAINTENANCE AND STORAGE OF EQUIPMENT IS REQUIRED.

- DRESS FOR THE JOB. CHOOSE CLOSE-FITTING CLOTHES AND LONG PANTS, HEARING PROTECTION, EYE PROTECTION, WORK BOOTS WITH TRACTION AND HEAVY GLOVES (WHEN HANDLING BLADES). DO NOT WEAR LOOSE-FITTING CLOTHES OR JEWELRY, WHICH CAN GET CAUGHT OR HUNG UP ON A MACHINE AND CAUSE INJURY.
- KNOW YOUR MACHINE. READ THE OPERATORS MANUAL TO FAMILIARIZE YOURSELF WITH YOUR MACHINES UNIQUE FEATURES. FOR EXAMPLE DEFLECTOR SHIELDS, ADJUSTMENTS, SKID SHOES, RETENTION SYSTEMS AND MAINTENANCE.
- READ WARNING LABELS AND CHECK SAFETY FEATURES. NEVER OPERATE YOUR MOWER IF YOUR SAFETY GUARDS AND DEVICES ARE NOT IN PLACE. REPLACE SAFETY GUARDS AND DEVICES IF DAMAGED OR NOT OPERATING PROPERLY.
- STOP MOWING IF PASSERSBY ARE WITHIN 100 YARD RADIUS FROM MOWER HEAD.
- NEVER ALLOW CHILDREN TO OPERATE, RIDE ON, OR COME CLOSE TO MOWER OR EQUIPMENT. NEVER LIFT A PERSON OR ALLOW ANYONE TO STAND ON A MOWER HEAD. KEEP BYSTANDERS AND PETS CLEAR AND OFF OF EQUIPMENT.
- EXTREME CARE SHOULD BE TAKEN WHEN OPERATING NEAR LOOSE OBJECTS SUCH AS GRAVEL, ROCKS OR GENERAL DEBRIS. THESE OBJECTS SHOULD BE REMOVED OR AVOIDED TO PREVENT INJURY FROM THROWN OBJECTS. WHERE GRASS AND WEEDS ARE HIGH ENOUGH TO HIDE DEBRIS THAT COULD BE STRUCK BY THE BLADES, THE AREA SHOULD BE INSPECTED AND LARGE DEBRIS REMOVED. MOW CLEARED AREA AT AN INTERMEDIATE HEIGHT, INSPECT CLOSELY FOR REMAINING DEBRIS AND REMOVE. MOW AGAIN AT DESIRED FINAL HEIGHT.
- KEEP THE MOWER HEAD AT LEAST 10 FEET FROM ELECTRIC LINES AND PIPE LINES TO PREVENT ACCIDENTAL CONTACT AND POSSIBLE SERIOUS INJURY OR EVEN DEATH.
- PRESSURIZED HYDRAULIC FLUID CAN PENETRATE THE SKIN CAUSING SERIOUS INJURY. DO NOT USE YOUR HAND TO CHECK FOR LEAKS ON A PRESSURIZED SYSTEM. USE A PIECE OF CARDBOARD OR PAPER TO SEARCH FOR LEAKS. STOP THE ENGINE AND RELIEVE PRESSURE BEFORE CONNECTING OR DISCONNECTING LINES. TIGHTEN ALL CONNECTIONS BEFORE STARTING THE ENGINE OR PRESSURIZING LINES. IF FLUID IS INJECTED INTO THE SKIN, OBTAIN MEDICAL ATTENTION IMMEDIATELY.
- CHECK ATTACHMENT POINTS. CHECK YOUR MOWER'S CONNECTION TO THE POWER UNIT. ALL PINS, BUSHINGS AND LINKAGE SHOULD BE CHECKED TO INSURE THEY ARE FREE TO TRAVEL THE FULL DISTANCE WITHOUT INTERFERENCE. REPAIR IF NECESSARY.
- CONDUCT DAILY INSPECTIONS. VERIFY THAT ALL SHIELDS AND GUARDS ARE IN PROPER WORKING ORDER. CHECK BLADE ATTACHMENT BOLTS TO INSURE ALL BLADES ARE PRESENT AND IN GOOD CONDITION. CHECK BLADES FOR CRACKS AROUND BOLT HOLE. CHECK THAT HYDRAULIC HOSE CONNECTIONS ARE COMPLETELY ENGAGED.

OPERATING SAFETY ZONE---100 YARD RADIUS FROM MOWER HEAD



STOP! AND ALLOW ALL VEHICLES TO PASS THROUGH OPERATING "SAFETY ZONE" BEFORE CONTINUING CUTTING. OPERATOR AWARENESS IS KEY TO SAFE OPERATION. NEVER OPERATE OR CONTINUE TO OPERATE THIS MACHINE WHEN THERE IS A PERSON OR VEHICLE WITHIN A 100 YARD RADIUS OF THE CUTTING OPERATION. IF A PERSON COMES INSIDE YOUR OPERATING "SAFETY ZONE" (100 YARD RADIUS) SHUT THE MACHINE DOWN.

KNOW YOUR OPERATING SAFETY ZONE!!

BEFORE STARTING THE OPERATOR SHOULD READ AND UNDERSTAND THE OWNER/OPERATION MANUAL FOR THE PARENT IMPLEMENT TO DETERMINE THE PROPER PROCEDURE FOR TURNING ON THE AUXILIARY HYDRAULICS TO RUN THE MOWER.

ATTACHING MOWER TO SKID STEER

SECURELY ATTACH THE QA60 OR QA72 MOWER IN THE SAME MANNER YOU WOULD ATTACH A BUCKET OR OTHER SKID STEER ATTACHMENT. CONFIRM THAT THE LOCKING MECHANISM IS PROPERLY ENGAGED.

CAREFULLY CLEAN THE HYDRAULIC QUICK COUPLERS BEFORE MAKING CONNECTIONS. DIRT QUICKLY DAMAGES THE HYDRAULIC SYSTEM. ALWAYS COVER OR CONNECT COUPLERS TOGETHER WHEN NOT IN USE.

CONNECT SUPPLY, RETURN AND CASE DRAIN LINES. CONFIRM THAT THE HYDRAULIC QUICK COUPLERS ARE FULLY ENGAGED AND LOCKED BY TURNING THE COLLARS. ENSURE THAT LIMITING STRAPS ARE CONNECTED TO SKID STEER ARMS.

CHECK WITH YOUR POWER UNITS MANUALS ON HOW BEST TO RELEASE THE PRESSURE IN THE AUXILIARY LINES FOR EASY COUPLING TO THE CONNECTORS.

ACTIVATE THE AUXILIARY HYDRAULIC CIRCUIT WITH THE CUTTER HEAD RAISED OFF THE GROUND.

CASE DRAIN LINE, WHAT AND WHY IS IT NEEDED?

THE CASE DRAIN PROTECTS THE MOWER MOTOR SHAFT SEAL FROM EXCESSIVE PRESSURE. MOTOR SHAFT SEALS ARE USUALLY RATED TO 100 PSI FOR BRIEF PERIODS OR LESS THAN ABOUT 50 PSI CONTINUOUSLY. HIGH PRESSURE OIL FROM THE GEAR SECTION TRAVELS BETWEEN THE SHAFT AND ITS SLEEVE BEARING TO AN AREA BEHIND THE SHAFT SEAL. THIS FLOW CONTINUES ON THROUGH THE RETURN LINE BY WAY OF AN INTERNAL CHECK VALVE OR THROUGH AN EXTERNAL CASE DRAIN. IN MOST COMPACT EQUIPMENT RETURN LINE PRESSURE IS HIGH ENOUGH TO CAUSE EITHER ABRUPT SEAL BLOWOUT (150+ PSI) OR EARLY FAILURE OF THE MOTOR SHAFT. HIGHER PRESSURE SEALS ARE AVAILABLE, BUT ARE NOT ALWAYS RELIABLE AND CAUSE OTHER PROBLEMS AS WELL.

THE BEST SOLUTION IS A DEDICATED CASE DRAIN. YOUR MACHINE MAY HAVE AN INTERNAL OR EXTERNAL CASE DRAIN SYSTEM THAT CAN ACCOMMODATE THE SMALL VOLUME OF GEAR MOTOR CASE FLOW. CONTACT YOUR VEHICLE DEALER OR MANUFACTURER FOR TECHNICAL DETAILS.

MOTOR SHAFT SEALS ARE NOT COVERED UNDER WARRANTY IF CASE DRAIN IS NOT PROPERLY INSTALLED OR FAILS. MAKE SURE CASE DRAIN LINE COUPLERS ARE PROPERLY CONNECTED.

BLADE DISC ASSEMBLY

INSPECT BLADE DISC AND BOLTS DAILY FOR EXCESSIVE WEAR, CRACKS AND TIGHTNESS.

TO LOOSEN BLADE BOLTS, FOLLOW THESE INSTRUCTIONS:

1. LOCK BAR OR DISC INTO A SOLID POSITION BY PLACING A PIECE OF WOOD BETWEEN THE ROTOR AND THE ROTOR GUARD.
2. DRIVE OUT ROLL PIN IN CASTLE NUT WITH 1/4" ROUND PUNCH.
3. REMOVE BLADE BOLT NUT WITH 1 13/16" SOCKET OR BOX WRENCH.
4. WITH BLADE HANGING IN RELAXED POSITION, STRIKE BLADE WITH HAMMER UNTIL BOLT COMES LOOSE IN ITS HOLE. REMOVE BOLT AND BLADE FROM ROTOR.

BLADES SHOULD ALWAYS BE REPLACED IN PAIRS. BLADES OF DIFFERENT WEIGHTS CAN CAUSE SERIOUS IMBALANCE AND DAMAGE TO THE MACHINE AND PERSONNEL. WHEN REPLACING BLADES, CHECK THE CONDITION OF THE BLADE BOLTS AND NUTS.

REPLACE BOLT IF IT SHOWS SIGNIFICANT WEAR OR DAMAGE OR HAS THE SLIGHTEST INDICATION OF A CRACK. ROTARY MOWERS TAKE AND DELIVER A TERRIFIC BEATING. SHOCK AND VIBRATION LEVELS ARE VERY HIGH SO BOLTS LOOSEN. IT IS IMPORTANT TO CHECK FOR LOOSE OR MISSING BOLTS AT LEAST ONCE A DAY AND TWICE IF CUTTING HAS BEEN PARTICULARLY TOUGH. BLADE BOLTS ARE DESIGNED TO BE USED TWICE IF WEAR IS NOT ADVANCED. SIMPLY ROTATE THE BOLT 90 DEGREES AND RETIGHTEN. THE SQUARE SHOULDERS ON THE BOLT ARE INTENDED FOR JUST THIS PURPOSE.

ALWAYS USE NEW NUTS WITH NEW BLADE BOLTS. APPLY ANTI-SEIZE COMPOUND TO THE BOLT THREADS AND TIGHTEN TO 75 FT. LBS. MAX. INSTALL NEW ROLL PIN.

BLADES ARE TWO SIDED AND CAN BE TURNED OVER IF ONLY WORN ON ONE SIDE, BUT DO NOT REUSE IF BENT. ALWAYS REPLACE BLADES WHEN THEY ARE EXCESSIVELY BENT, DEFORMED, OR OUT OF BALANCE.

QA60

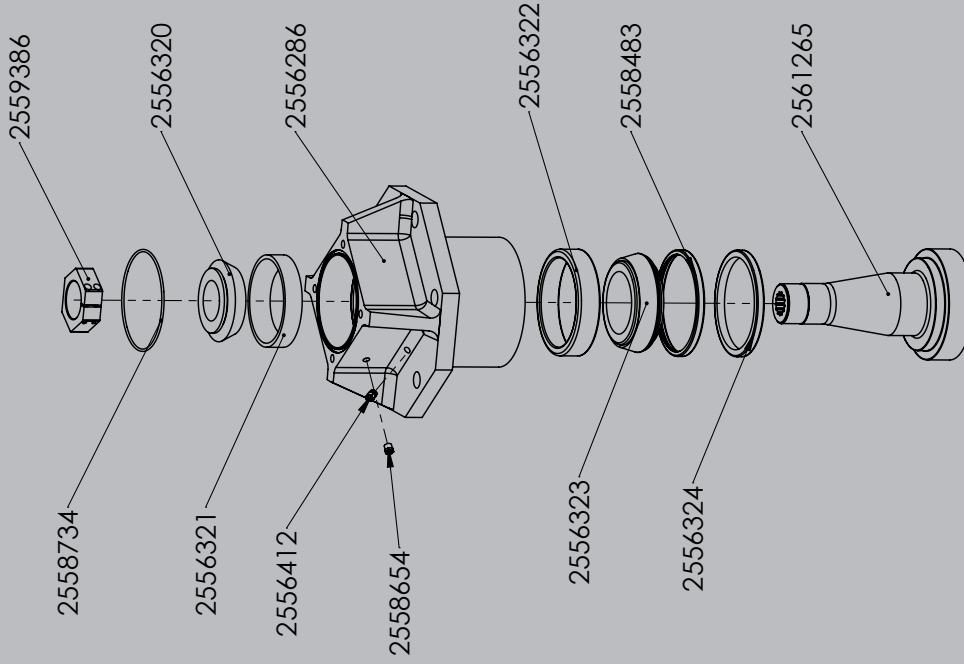
**ROTARY BLADE KIT PART #2564243
(INCLUDES 2 BLADES, 2 ROTARY BLADE
BOLTS, 2 SLOTTED NUT, 2 ROLL PIN)**

QA72

**2562028 27# ROTARY BLADE
2562010 27# ROTARY BLADE BOLT
2600232 27# ROTARY BLADE BOLT NUT
2562033 27# ROTARY BLADE BOLT PIN**



QA60 AND QA72 SPINDLE HOUSING ASSEMBLY EXPLODED



ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	2556286	Rotary Spindle Housing	1
2	2559386	SN200 Spindle Nut - LH Thread	1
3	2556320	Rotary Spindle Upper Bearing	1
4	2556323	Rotary Spindle Lower Bearing	1
5	2556321	Rotary Spindle Upper Bearing Race	1
6	2556322	Rotary Spindle Lower Bearing Race	1
7	2561265	2010 Rotary Spindle	1
8	2556324	Spindle Seal	1
9	2558483	Rotary Seal Spacer	1
10	2558734	O-Ring	1
11	2556412	1/8 Pipe STR Zerk	1
12	2558654	5 PSI Poppet Valve	1

2562843

QA72 HIGH INTENSITY SPINDLE

MUST BE REPLACED WITH ABOVE PART #

Parts List

SPINDLE HOUSING MAINTENANCE

OTHER THAN KEEPING THE BEARINGS WELL GREASED, THE SINGLE MOST IMPORTANT FACTOR TO LONGEVITY OF THE SPINDLE ASSEMBLY IS BEARING PRE-LOAD. BEARING PRE-LOAD MUST BE MAINTAINED. PRE-LOAD IS PROVIDED BY THE SPINDLE NUT AT THE TOP OF THE SPINDLE. THE TORQUE ON THIS NUT SHOULD BE CLOSE TO 40 FT. LBS. PRE-LOAD MAY NEED ADJUSTMENT AFTER SEVERAL HARD GROUND STRIKES. A HELICOPTER LIKE NOISE, WHEN THE PLANE OF THE DECK IS CHANGED, IS A CLEAR INDICATION OF THE NEED FOR PRE-LOAD ADJUSTMENT. IF IN DOUBT, MANUALLY EXAMINE PRE-LOAD.

SET DECK IN A VERTICAL POSITION AND GRIP EDGES OF THE BLADE BAR WHILE ALTERNATELY PULLING HARD ON ONE SIDE AND PUSHING HARD ON THE OTHER. IF ANY PLAY CAN BE DETECTED PRE-LOAD ADJUSTMENT IS NEEDED.

ASSEMBLING THE SPINDLE HOUSING (USE HEAT TO REMOVE SPINDLE NUT)

IF THE SPINDLE HOUSING ASSEMBLY MUST BE REASSEMBLED THE FOLLOWING STEPS CAN HELP ENSURE THE PERFORMANCE AND LONGEVITY OF THE UNIT:

1. CLEAN THE HOUSING AND SPINDLE, REMOVING ALL METAL CHIPS, PAINT, DIRT, USED GREASE AND OTHER CONTAMINANTS.
2. PLACE THE SPINDLE HOUSING MOTOR SIDE UP INSERT SMALL CUP AND FLIP OVER, INSERT LARGE RACE. BE CERTAIN RACES ARE COMPLETELY BEDDED.
3. PACK LARGE BEARING WITH NLGI#0 LITHIUM GREASE AND INSERT. CLEAN OFF EXCESS GREASE AFTER INSERTING.
4. INSERT SPACER WITH WIDEST LIP FACING UP, APPLY RETAINING COMPOUND TO INNER BEARING WHERE SPINDLE GOES. THEN INSERT SPINDLE SEAL WITH SOLID FACE OUTWARD.
5. PRESS CLEANED SPINDLE DOWN INTO SPINDLE HOUSING.
6. FLIP HOUSING OVER AND FILL CAVITY WITH GREASE.
7. GREASE AND PRESS IN SMALL BEARING. USE RETAINING COMPOUND ON INNER SURFACE.
8. APPLY LOCKTITE 243 TO SET SCREWS AND SCREW INTO SPINDLE NUT.
9. APPLY LOCKTITE 262 TO THREADS AND HAND THREAD SPINDLE NUT ONTO SPINDLE. (NUT IS LEFT HAND THREAD AND ONLY GOES ON ONE WAY. IF IT DOESN'T THREAD ON, FLIP OVER AND HAND THREAD ON AGAIN). FOLLOW ADJUSTING PRE-LOAD INSTRUCTIONS BELOW

ADJUSTING PRE-LOAD

1. ADJUST THE TWO LOCK SCREWS ON THE NUT SO THAT THE NUT WILL HAVE SOME DRAG WHEN TURNED ON THE SPINDLE.
2. APPLY RED LOCKTITE TO SPINDLE NUT, TIGHTEN TO 40 FT. LBS., THEN TURN THE SPINDLE 3-4 TURNS.
3. BACK OFF NUT 1/4 TURN. TIGHTEN TO 35 FT. LBS.
4. TAP THE TOP OF SPINDLE NUT AROUND IT'S PERIMETER WITH SMALL HAMMER TO SET THE SPINDLE NUT THREADS. TIGHTEN LOCK SCREWS. TAP AGAIN. DO THIS UNTIL THE LOCK SCREWS WILL NOT TIGHTEN FURTHER.
5. TOP OFF WITH GREASE.
6. APPLY O RING TO MOTOR END OF SPINDLE HOUSING.
7. BE SURE TO APPLY RED LOCKTITE TO MOTOR HOUSING BOLTS.
8. WITH THE MOTOR IN PLACE, PUMP GREASE INTO THE ASSEMBLY THROUGH THE GREASE WHIP UNTIL THE HOUSING IS FILLED. INCLUDING GREASE USED FOR ASSEMBLY, THE ASSEMBLY SHOULD TAKE 3 TUBES OF GREASE. US MOWER RECOMMENDS HIGH QUALITY NLGI#0 LITHIUM BASE.(CALCIUM BASE GREASE IS USEFUL FOR VERY WET CONDITIONS.)

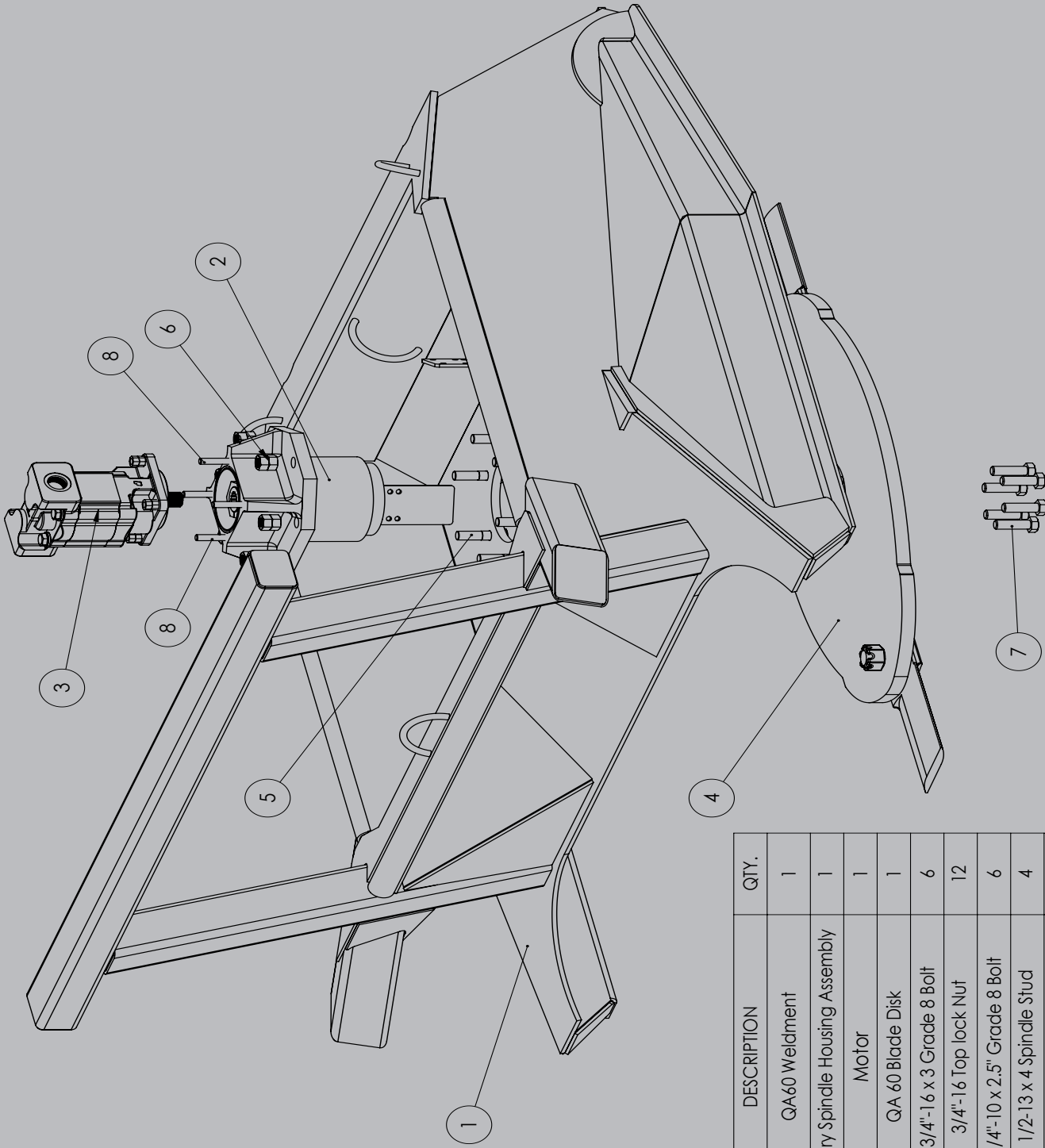
BOLT TORQUE CHART

SIZE	SAE GRADE 2		SAE GRADE 5		SAE GRADE 8		L9	
	ASSEMBLY TORQUE DRY	LUBRICATED	ASSEMBLY TORQUE DRY	LUBRICATED	ASSEMBLY TORQUE DRY	LUBRICATED	ASSEMBLY TORQUE DRY	LUBRICATED
1/4-20	86*	49*	8	75*	12	9		11
1/4-28	76*	56*	10	86*	14	10		13
5/16-18	11	8	17	13	20	18		21
5/16-24	12	9	19	14	25	20		23
3/8-16	20	15	30	23	45	30		33
3/8-24	23	17	35	25	50	35		38
7/16-14	30	24	50	35	70	55		60
7/16-20	35	25	55	40	80	60		65
1/2-13	50	35	75	55	110	80		95
1/2-20	55	40	90	65	120	90		105
9/16-12	85	50	110	80	150	110		140
9/16-18	75	55	120	90	170	130		150
5/8-11	90	70	150	110	220	170		185
5/8-18	100	80	180	130	240	180		205
3/4-10	160	120	260	200	380	280		290
3/4-16	180	140	300	220	420	320		355
7/8-9	190	140	400	300	600	460		505
7/8-14	210	155	440	320	660	500		585
1-8	230	160	580	440	900	680		775
1-14	240	170	640	480	1000	740		900
1 1/8-7	300	220	800	600	1280	960		1150
1 1/8-12	340	260	880	660	1440	1080		1325
1 1/4-7	420	320	1120	840	1820	1380		1600
1 1/4-12	460	360	1240	920	2000	1500		1750
1 3/8-6	560	420	1460	1100	2380	1780		—
1 3/8-12	640	460	1680	1260	2720	2040		—
1 1/2-6	740	560	1940	1460	3180	2380		3250
1 1/2-12	840	620	2200	1640	3560	2660		3650

ITEMS WITH * = INCH POUNDS
ALL OTHERS = FOOT POUNDS

"LUBRICATED"
INCLUDES LUBRICANTS, LUBRIZING, PLATING, AND HARDENED WASHERS

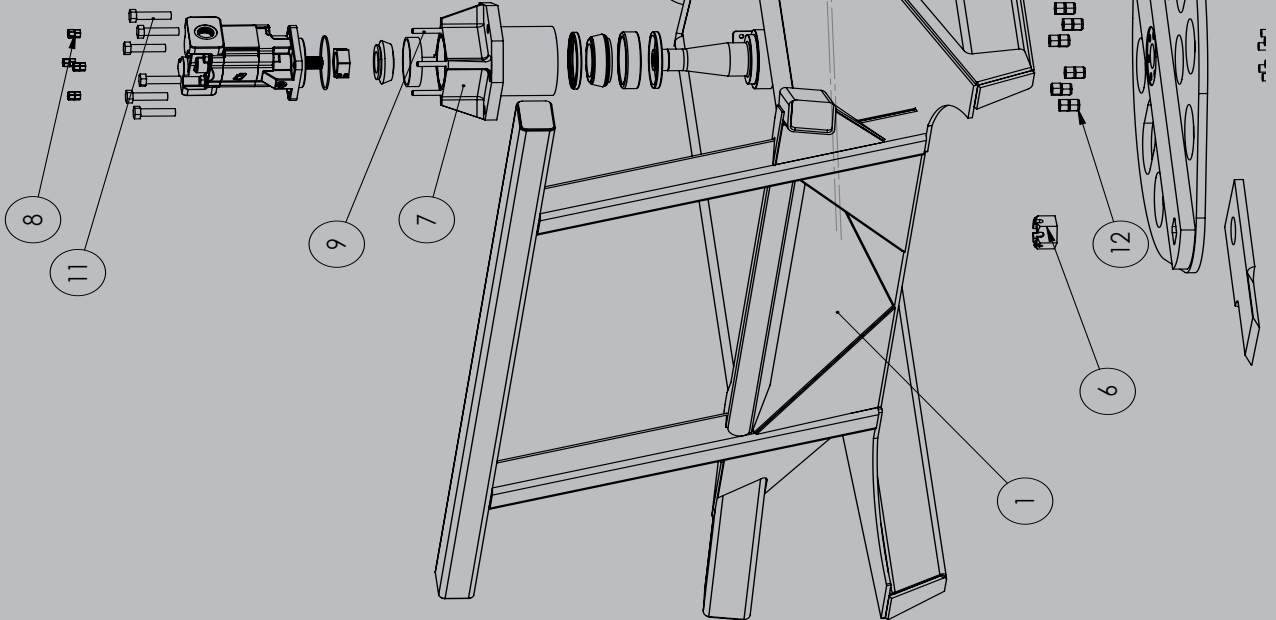
PARTS LIST-QA60 ROTARY MOWER



ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	QA60 Weldment 2560977	QA60 Weldment	1
2	2559479	Rotary Spindle Housing Assembly	1
3		Motor	1
4	2559720	QA 60 Blade Disk	1
5	2560047	3/4"-16 x 3 Grade 8 Bolt	6
6	2600239	3/4"-16 Top lock Nut	12
7	2557954	3/4"-10 x 2.5" Grade 8 Bolt	6
8	2563020	1/2"-13 x 4 Spindle Stud	4
9	2557338	1/2"-13 Hex Nut	8

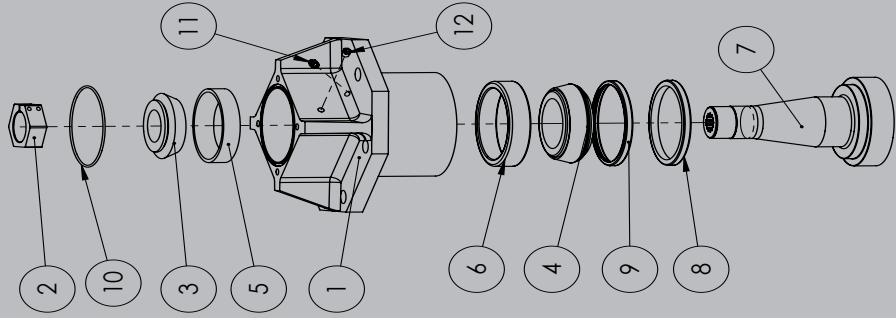
Parts List

PARTS LIST-QA72 SKID STEER ROTARY MOWER



ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	2561349	QA72 Weldment	1
2	2562031	QA72 Blade Disc	1
3	2562031	2.5" M257 Motor	1
4	2562010	27# Heavy Rotary Blade Bolt	2
5	2562028	27 lb Rotary Blade	2
6	2600232/2562033	2" Slotted Nut/Tension Pin	2/2
7	2559479	Rotary Spindle Housing Assembly	1
8	2564245	1/2-13 Lock Nut	8
9	2563020	Rotary Spindle Stud	4
10	2561100	3/4-16X 3" BOLT	6
11	2561299	3/4-16 x 3" Hex Bolt Plain Finish	6
12	2558107	3/4-16 Top Lock Nut	12

ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	2556286	Rotary Spindle Housing	1
2	2559386	SN200 Spindle Nut - LH Thread	1
3	2556320	Rotary Spindle Upper Bearing	1
4	2556323	Rotary Spindle Lower Bearing	1
5	2556321	Rotary Spindle Upper Bearing Race	1
6	2556322	Rotary Spindle Lower Bearing Race	1
7	2562843	High Intensity Rotary Spindle	1
8	2556324	Spindle Seal	1
9	2558483	Rotary Seal Spacer	1
10	2558734	O-Ring	1
11	2556412	1/8 Pipe STR Zerk	1
12	2558654	5 PSI Poppet Valve	1



US MOWER FACTORY WARRANTY

USM WARRANTS ALL OF ITS MOWERS FOR A PERIOD OF 12 MONTHS.

THE WARRANTY SPECIFICALLY COVERS MANUFACTURING OR COMPONENT DEFECTS ONLY. DEFECTS OR DAMAGE CAUSED BY NON-US MOWER INSTALLERS OR OWNER/OPERATORS ARE NOT COVERED.

NORMAL WEAR PARTS ARE NOT COVERED BY THIS WARRANTY

EXCLUSIONS NOT COVERED BY WARRANTY:

- COMPONENTS SHOWING EVIDENCE OF OPERATIONAL MISUSE, ABUSE OR MODIFICATION.
- COMPONENTS SHOWING EVIDENCE OF MAINTENANCE NEGLECT INCLUDING, BUT NOT LIMITED TO:
 1. FAILURE TO FOLLOW THE LUBRICATION SCHEDULE
 2. FAILURE TO MAINTAIN PROPER HARDWARE BOLT TORQUE. INSPECT FREQUENTLY.
 3. FAILURE TO MAINTAIN PROPER BEARING PRE-LOAD.
 4. POOR QUALITY OIL, IMPROPER OIL LEVEL
 5. OIL FILTERS NOT REPLACED AS NEEDED, INAPPROPRIATE FILTER INSTALLED
- TECHNICIAN OR MECHANICS TRAVEL TIME
- MACHINE PICK-UP AND OR DELIVERY TO REPAIR FACILITY.
- COMPONENTS CLASSIFIED AS CONSUMABLES.
- HYDRAULIC HOSES NOT OF USM MANUFACTURE-NOTE: IF AN OTHERWISE WARRANTABLE HOSE IS REPLACED FROM OTHER SOURCES, A CREDIT WILL BE ISSUED WHICH WILL REPRESENT USM'S COST OF MANUFACTURING THAT HOSE AND SHIPPING BY UPS GROUND.
- BENT FLAIL SHAFTS OR SHAFT STUBS
- THE WARRANTY WILL BE CONSIDERED VOID IF CLOSED COMPONENTS ARE DISASSEMBLED PRIOR TO RETURN. CLOSED COMPONENTS INCLUDE, BUT ARE NOT LIMITED TO: HYDRAULIC PUMPS, MOTORS, AND CYLINDERS.
- ALL REPLACEMENT COMPONENTS WILL BE SHIPPED TO CUSTOMER/DEALER VIA UPS GROUND. ALL REPLACEMENT COMPONENTS SHIPPED ARE INVOICED AS A MATTER OF COURSE. COMPONENTS THAT REQUIRE EVALUATION AT THE FACTORY MUST BE SHIPPED FREIGHT PREPAID. A CREDIT WILL BE ISSUED FOR THE REPLACEMENT COMPONENT AND FREIGHT WHEN IT IS DETERMINED THAT THE WARRANTY IS APPLICABLE. ALL WARRANTY WORK OR REPLACEMENT COMPONENTS MUST BE PRE-AUTHORIZED BY US MOWER. US MOWER IS NOT RESPONSIBLE FOR UNAUTHORIZED REPAIRS OR REPLACEMENTS. IF THERE ARE QUESTIONS REGARDING THE APPLICABILITY OF WARRANTY, A CALL TO USM IS RECOMMENDED BEFORE WORK PROCEEDS.

CREDIT FOR LABOR

LABOR CREDIT FOR A WARRANTABLE REPAIR WILL BE ISSUED ONLY FOR WORK DONE IN A SERVICE DEALER'S SHOP. NO LABOR CREDIT WILL BE ISSUED FOR WORK DONE IN THE FIELD (I.E., AT THE MACHINE SITE) EXCEPT BY SPECIFIC FACTORY AUTHORIZATION. TRAVEL TIME TO AND FROM MACHINE WILL NOT BE WARRANTED. ACTUAL WARRANTY COMPENSATION WILL BE BASED ON USM FLAT RATE MANUAL.

CREDIT WILL NOT BE ISSUED AND WARRANTY IS NOT VALID FOR ANY UNIT THAT IS NOT PAID WITHIN TERMS OF THE INVOICE INCLUDING THE SERIAL NUMBER FOR PURCHASED COMPONENT REGARDLESS OF THE END USER. WHOLESALER OR DEALER IS RESPONSIBLE FOR ALL COSTS OF WARRANTY REPAIRS UNLESS INVOICE IS WITHIN TERMS.

DAMAGE AND INJURY

USM LIABILITY IS SPECIFICALLY LIMITED TO THE REPLACEMENT OF COMPONENTS FOR ITS PRODUCTS IF A WARRANTABLE DEFECT IS DISCOVERED. COLLATERAL DAMAGE TO PROPERTY OR PERSONAL INJURY IS EXCLUSIVELY THE RESPONSIBILITY OF THE OWNER AND OR OPERATOR SINCE USM HAS NO CONTROL OVER THE CIRCUMSTANCES IN WHICH IT'S EQUIPMENT IS USED. LOST TIME OR EXPENSE WHICH MAY HAVE ACCRUED BECAUSE OF DEFECTS IS NOT COVERED.

EXPRESS WARRANTY

SELLER WARRANTS THAT:

THE GOODS TO BE SUPPLIED PURSUANT TO THIS AGREEMENT (PURCHASERS AGREEMENT TO BUY AND SELLER'S AGREEMENT TO SELL) ARE FIT AND SUFFICIENT FOR THE PURPOSE INTENDED.

THE GOODS ARE MERCHANTABLE, OF GOOD QUALITY AND FREE FROM DEFECTS WITHIN THE SELLER KNOWLEDGE, WHETHER PATENT OR LATENT, IN MATERIAL OR WORKMANSHIP.

THE SELLER HAS TITLE TO THE GOODS SUPPLIED IN THAT THE GOODS ARE FREE AND CLEAR OF ALL LIENS, ENCUMBRANCES AND SECURITY INTERESTS. ALL WARRANTIES MADE IN THIS AGREEMENT, TOGETHER WITH SERVICE WARRANTIES AND GUARANTEES SHALL RUN TO BUYER AND THE ORIGINAL CUSTOMER OF BUYER.

THERE ARE NO OTHER WARRANTIES EITHER EXPRESSED OR IMPLIED

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