

PARTS AND OPERATION MANUAL



CONCRETE SAW MODEL FS2

MODEL # _____

SERIAL # _____

Revision #2 (11/08/01)

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WARNING



CALIFORNIA — Proposition 65 Warning

Engine exhaust and some of its constituents, and some dust created by power sanding, sawing, grinding, drilling and other construction activities contains chemicals known to the State of California to cause cancer, birth defects and other reproductive harm. Some examples of these chemicals are:

- Lead from lead-based paints.
- Crystalline silica from bricks.
- Cement and other masonry products.
- Arsenic and chromium from chemically treated lumber.

Your risk from these exposures varies, depending on how often you do this type of work. To reduce your exposure to these chemicals: ALWAYS work in a well ventilated area, and work with approved safety equipment, such as dust masks that are specially designed to filter out microscopic particles.

HERE'S HOW TO GET HELP

*PLEASE HAVE THE MODEL AND SERIAL NUMBER
ON-HAND WHEN CALLING*

PARTS DEPARTMENT

800-427-1244 or 310-537-3700

FAX: 800-672-7877 or 310-637-3284

SERVICE DEPARTMENT/TECHNICAL ASSISTANCE

800-478-1244 or 310-537-3700

FAX: 310- 537-4259

WARRANTY DEPARTMENT

888-661-4279, or 310-661-4279

FAX: 310- 537-1173

MAIN

800-421-1244 or 310-537-3700

FAX: 310-537-3927

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MQ-Whiteman — FS2 Concrete Saw

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NOTE

Specification and part number are subject to change without notice.

- Dealer account number
- Dealer name and address
- Shipping address (if different than billing address)
- Return fax number
- Applicable model number
- Quantity, part number and description of each part
- Specify preferred method of shipment:
 - UPS Ground
 - UPS Second Day or Third Day*
 - UPS Next Day*
 - Federal Express Priority One (please provide us with your Federal Express account number)*
 - Airborne Express*
 - Truck or parcel post

**Normally shipped the same day the order is received, if prior to 2PM west coast time.*

Earn Extra Discounts when you order by FAX!

All parts orders which include complete part numbers and are received by fax qualify for the following extra discounts:

<u>Number of line items ordered</u>	<u>Additional Discount</u>
1-9 items	3%
10+ items**	5%

Get special freight allowances when you order 10 or more line items via FAX!**

- UPS Ground Service at no charge for freight
- PS Third Day Service at one-half of actual freight cost

No other allowances on freight shipped by any other carrier.

**Common nuts, bolts and washers (all items under \$1.00 list price) do not count towards the 10+ line items.

DISCOUNTS ARE SUBJECT TO CHANGE

Fax order discount and UPS special programs revised June 1, 1995

**Extra Fax Discount
for Domestic USA
Dealers Only**

**Up to 5%
extra savings!**

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Special**
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FS2 CONCRETE SAW — SAFETY MESSAGE ALERT SYMBOLS

FOR YOUR SAFETY AND THE SAFETY OF OTHERS!

Safety precautions should be followed at all times when operating this equipment. Failure to read and understand the Safety Messages and Operating Instructions could result in injury to yourself and others.

NOTE

This Owner's Manual has been developed to provide complete instructions for the safe and efficient operations of the MQWhiteman FS2 Concrete Saw. Depending on the power plant you have selected, please refer to the engine manufacturers instructions for data relative to its safe operations.

Before using this Concrete Saw, ensure that the operating individual has read and understands all instructions in this manual.

SAFETY MESSAGE ALERT SYMBOLS

The three (3) Safety Messages shown below will inform you about potential hazards that could injure you or others. The Safety Messages specifically address the level of exposure to the operator, and are preceded by one of three words: **DANGER**, **WARNING**, or **CAUTION**.



DANGER: You **WILL** be **KILLED** or **SERIOUSLY** injured if you do not follow directions.



WARNING: You **CAN** be **KILLED** or **SERIOUSLY** injured if you do not follow directions.



CAUTION: You **CAN** be injured if you do not follow directions.

Potential hazards associated with Concrete Saw operations will be referenced with Hazard Symbols which appear throughout this manual, and will be referenced in conjunction with Safety Message Alert Symbols.

HAZARD SYMBOLS



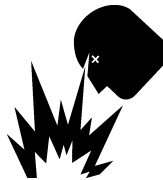
Lethal Exhaust Gases



Engine exhaust gases contain poisonous carbon monoxide. This gas is colorless and odorless, and can cause death if inhaled. **NEVER** operate this equipment in a confined area or enclosed structure that does not provide ample free flow air.



Explosive Fuel



Gasoline is extremely flammable, and its vapors can cause an explosion if ignited. **DO NOT** start the engine near spilled fuel or combustible fluids. **DO NOT** fill the fuel tank while the engine is running or hot. **DO NOT** overfill tank, since spilled fuel could ignite if it comes into contact with hot engine parts or sparks from the ignition system. Store fuel in approved containers, in well-ventilated areas and away from sparks and flames. **NEVER** use fuel as a cleaning agent.



Burn Hazards



Engine components can generate extreme heat. To prevent burns, **DO NOT** touch these areas while the engine is running or immediately after operations. Never operate the engine with heat shields or heat guards removed.



Rotating Parts



NEVER operate equipment with covers, or guards removed. Keep fingers, hands, hair and clothing away from all moving parts to prevent injury.

FS2 CONCRETE SAW — SAFETY MESSAGE ALERT SYMBOLS



Accidental Starting



ALWAYS place ON/OFF switch to OFF, remove key and/or disconnect the spark plug lead before servicing the engine or equipment. Ground the lead to prevent sparks that could ignite a fire.



Respiratory Hazard



ALWAYS wear approved respiratory protection.



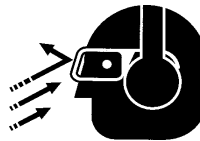
Over Speed Conditions



NEVER tamper with the factory settings of the engine governor or settings. Personal injury and damage to the engine or equipment can result if operating in speed ranges above maximum allowable.



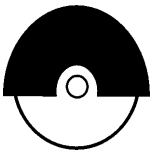
Sight and Hearing hazard



ALWAYS wear approved eye and hearing protection.



Guards and Covers In Place



NEVER operate the saw without blade guards and covers in place. Adhere to safety guidelines ANSI American National Standards Institute, OSHA or other applicable local regulations.



Equipment Damage Messages

Other important messages are provided throughout this manual to help prevent damage to your concrete saw, other property, or the surrounding environment.

NOTE

This concrete saw, other property, or the surrounding environment could be damaged if you do not follow instructions.

FS2 CONCRETE SAW — DECALS

Machine Safety Decals

The FS2 Concrete Saw is equipped with a number of safety decals (Figure 1). These decals are provided for operator safety and maintenance information. The illustration shows these decals as they appear on the concrete saw. Should any of these decals become unreadable, replacements can be obtained from you dealer.

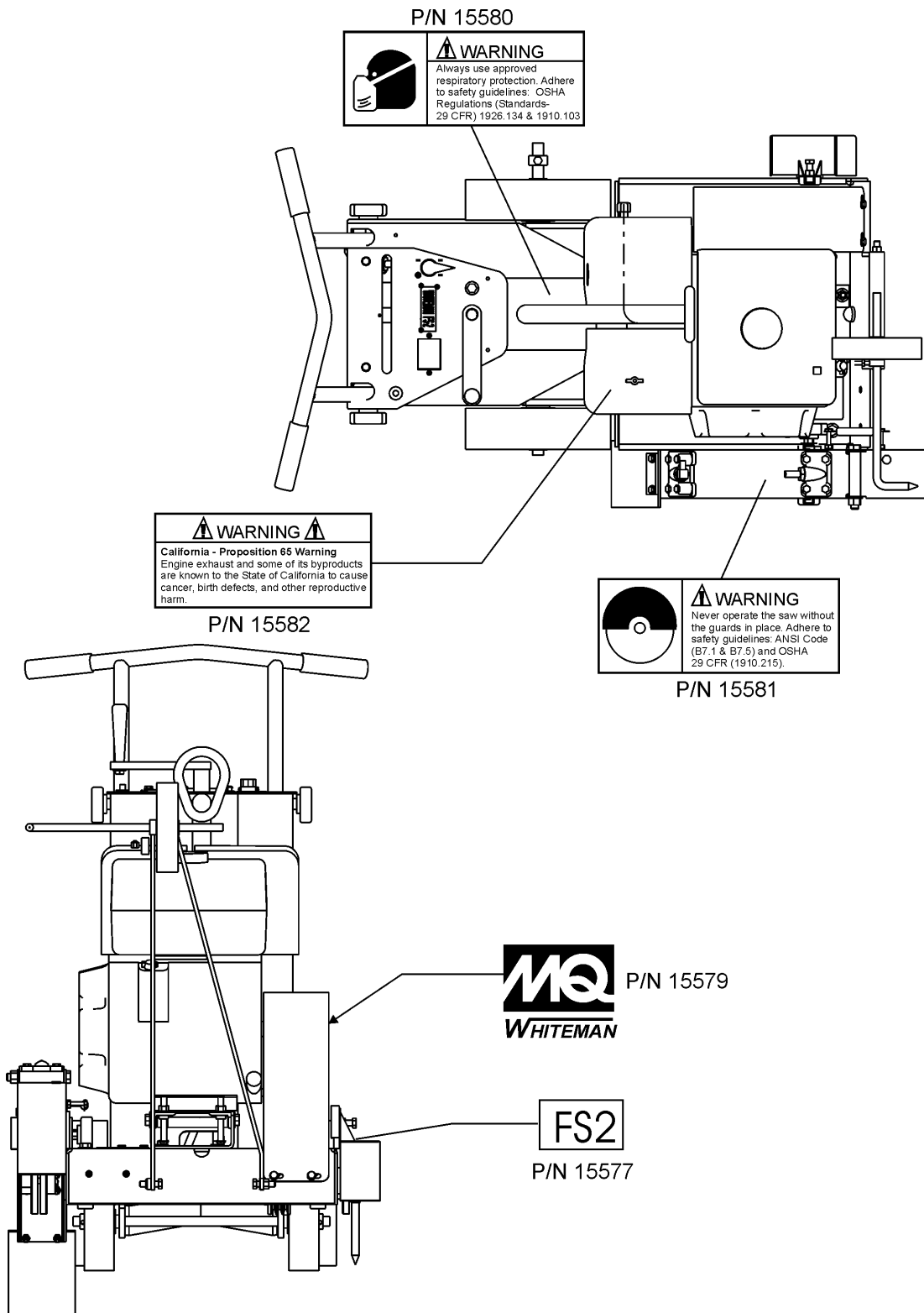


Figure 1. FS2 Concrete Saw Decal Placement

FS2 CONCRETE SAW — RULES FOR SAFE OPERATION

WARNING:

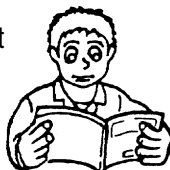


Failure to follow instructions in this manual may lead to serious injury or even death! This equipment is to be operated by trained and qualified personnel only! This equipment is for industrial use only.

The following safety guidelines should always be used when operating the MQ Whiteman FS2 Concrete Saw:

GENERAL SAFETY

- **DO NOT** operate or service this equipment before reading this entire manual.



- This equipment should not be operated by persons under 18 years of age.

- **NEVER** operate this equipment without proper protective clothing, shatterproof glasses, steel-toed boots and other protective devices required by the job.



- **NEVER** operate this equipment when not feeling well due to fatigue, illness or taking medicine.



- **NEVER** operate this equipment under the influence of drugs or alcohol.



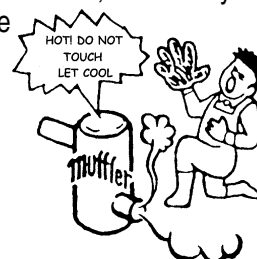
- **NEVER** use accessories or attachments, which are not recommended by Multiquip for this equipment. Damage to the equipment and/or injury to user may result.

- The manufacturer does not assume responsibility for any accident due to equipment modifications.

- Whenever necessary, replace nameplate, operation and safety decals when they become difficult to read.

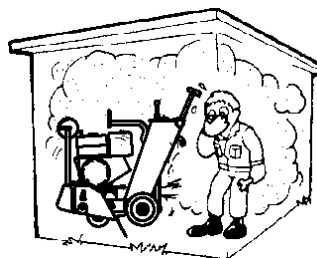
- Always check the machine for loosened threads or bolts before starting.

- **NEVER** touch the hot exhaust manifold, muffler or cylinder. Allow these parts to cool before servicing engine or saw.



- **High Temperatures** – Allow the engine to cool before adding fuel or performing service and maintenance functions. Contact with *hot* components can cause serious burns.

- The engine section of this saw requires an adequate free flow of cooling air. Never operate the saw in any enclosed or narrow area where free flow of the air is restricted. If the air flow is restricted it will cause serious damage to the saw or engine and may cause injury to people. Remember the saw's engine gives off **DEADLY** carbon monoxide gas.



- Always refuel in a well-ventilated area, away from sparks and open flames.

- Always use extreme caution when working with **flammable** liquids. When refueling, **stop the engine** and allow it to cool. **DO NOT smoke** around or near the machine. Fire or explosion could result from fuel vapors, or if fuel is spilled on a hot engine.



- **NEVER** operate the saw in an explosive atmosphere or near combustible materials. An explosion or fire could result causing severe *bodily harm or even death*.

- Topping-off to the filler port is dangerous, as it tends to spill fuel.

- **NEVER** use fuel as a cleaning agent.

FS2 CONCRETE SAW — RULES FOR SAFE OPERATION

GENERAL SAFETY

- Always read, understand, and follow procedures in Operator's Manual before attempting to operate equipment.
- Always be sure the operator is familiar with proper safety precautions and operating techniques before using the saw.
- Stop the engine when leaving the saw unattended.
- Block the unit when leaving or when using on a slope.
- Maintain this equipment in a safe operating condition at all times.
- Always stop the engine before servicing, adding fuel and oil.
- **NEVER** Run engine without air filter. Severe engine damage may occur.
- Always service air cleaner frequently to prevent carburetor malfunction.
- Always store equipment properly when it is not being used. Equipment should be stored in a clean, dry location out of the reach of children.
- **NEVER** use accessories or attachments, which are not recommended by Multiquip for this equipment. Damage to the equipment and/or injury to user may result.
- **NEVER** operate this saw in areas that contain combustible material or fumes. Fire and/or explosions may result from errant sparks from the equipment.

WARNING:



- **DO NOT** operate this equipment unless all guards and safety devices are attached and in place.

- Caution must be exercised while servicing this equipment. Rotating and moving parts can cause injury if contacted.
- Keep all inexperienced and unauthorized people away from the equipment at all times.
- Unauthorized equipment modifications will void all warranties.
- Test the **ON/OFF** switch before operating. The purpose of the switch is to shut down the engine.

DIAMOND BLADE SAFETY

- Use appropriate steel centered diamond blades manufactured for use on concrete saws.
- Always inspect diamond blades before each use. The blade should exhibit no cracks, dings, or flaws in the steel centered core and/or rim. Center (arbor) hole must be undamaged and true.
- Examine blade flanges for damage, excessive wear and cleanliness before mounting blade. Blade should fit snugly on the shaft and against the inside/outside blade flanges.
- Ensure that blade is marked with an operating speed greater than the blade shaft speed of the saw.
- Only cut the material that is specified by the diamond blade. Read the specifications of the diamond blade to ensure the proper tool has been matched to the material being cut.
- Always keep blade guards in place. Exposure of the diamond blade must not exceed 180 degrees.
- Ensure that the diamond blade does not come into contact with the ground or surface during transportation. **DO NOT** drop the diamond blade on ground or surface.
- The engine governor is designed to permit maximum engine speed in a no-load condition. Speeds that exceed this limit may cause the diamond blade to exceed the maximum safe allowable speed.
- Ensure that the blade is mounted for proper operating direction.

SAW TRANSPORTATION SAFETY

- Use the lifting bail and appropriate lifting equipment to ensure the safe movement of the saw.
- **DO NOT** use the handle bars and/or front pointer as lifting points.
- **NEVER** tow the saw behind a vehicle.
- Ensure that both pointer bars are positioned appropriately to minimize their exposure during transportation.
- Safeguard against extreme saw attitudes relative to level. Engines tipped to extreme angles may cause oil to gravitate into the cylinder head making the engine difficult to start.
- **NEVER** transport the saw with the blade mounted.

FS2 CONCRETE SAW — RULES FOR SAFE OPERATION

Emergencies

- Always know the location of the nearest **fire extinguisher** and **first aid kit**. Know the location of the nearest telephone. Also know the phone numbers of the nearest **ambulance**, **doctor** and **fire department**. This information will be invaluable in the case of an emergency.

Maintenance Safety

- **NEVER** lubricate components or attempt service on a running machine.
- Always allow the machine a proper amount of time to cool before servicing.
- Keep the machinery in proper running condition.
- Fix damage to the machine immediately and always replace broken parts.
- Dispose of hazardous waste properly. Examples of potentially hazardous waste are used motor oil, fuel and fuel filters.
- **DO NOT** use food or plastic containers to dispose of hazardous waste.

FS2 CONCRETE SAW — DIMENSIONS

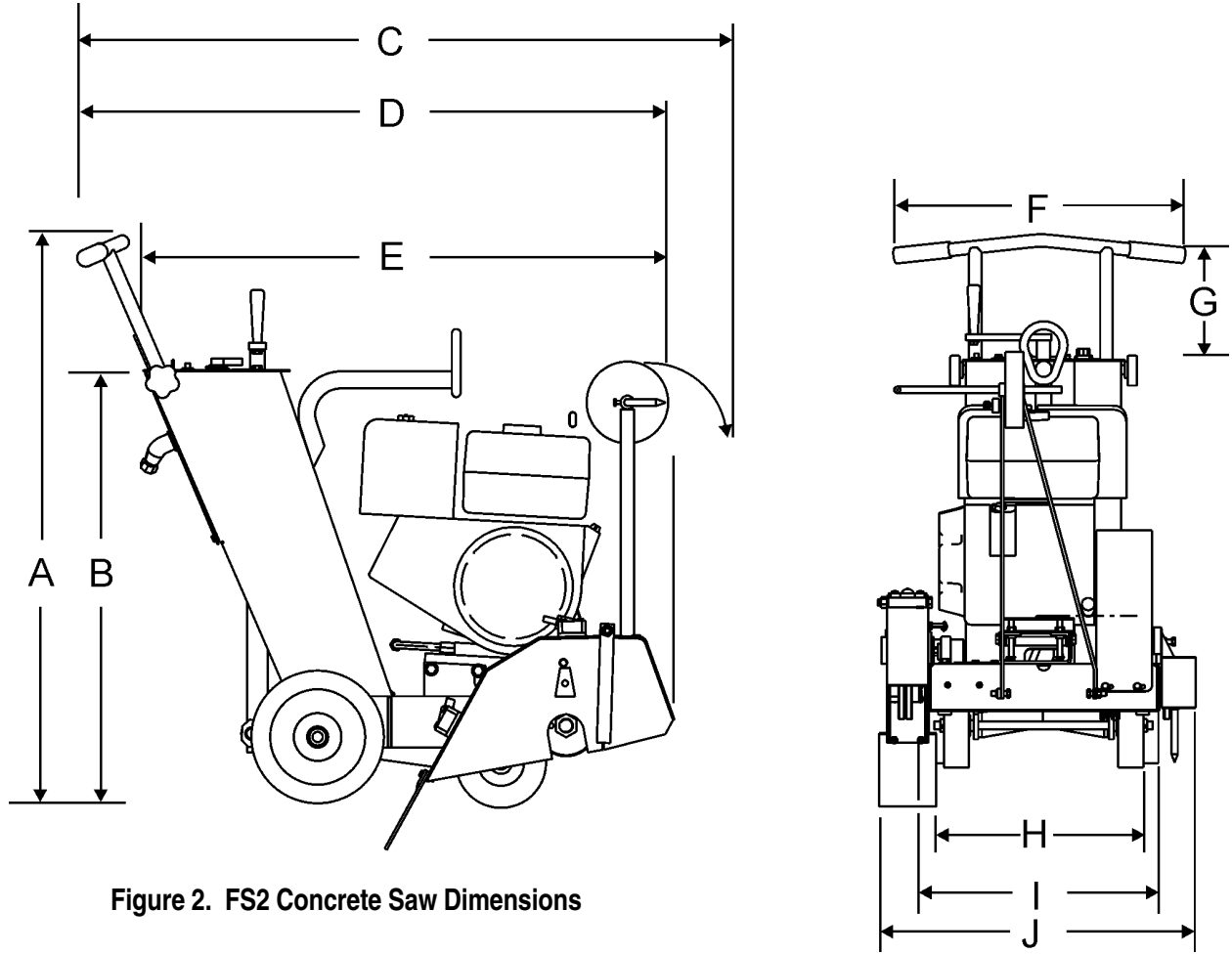


Figure 2. FS2 Concrete Saw Dimensions

TABLE 1. DIMENSIONS

REFERENCE LETTER	DESCRIPTION	DIMENSION (MM)
A	Max Height (Handle Bars Fully Raised)	47.5" (1207)
B	Max Height (Handle Bars Fully Lowered)	39.0" (991)
C	Max Length (Handle Bars Fully Raised & Front Pointer Lowered)	66.0" (1676)
D	Max Length (Handle Bars Fully Raised & Front Pointer Raised)	47.0" (1194)
E	Max Length (Handle Bars Fully Lowered & Front Pointer Raised)	43.0" (1092)
F	Max Handle Bar Width	23.5" (597)
G	Max Handle Bar Deflection	16.0" (406)
H	Front Wheel Base	15.5" (394)
I	Rear Wheel Base	18.0" (457)
J	Max Width	26.0" (660)
Crated Dimension (L x W x H)		47" (1194) x 30" (762) x 44" (1118)

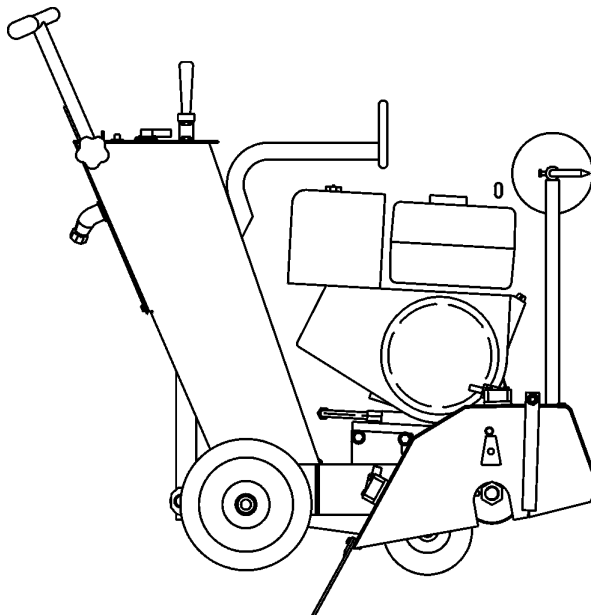


Figure 3. FS2 Concrete Saw Weights

TABLE 2. WEIGHTS		
SAW	DESCRIPTION	WEIGHT (kgs)
FS2-LE14	SAW, FS2, 14", PUSH, LESS ENGINE	200 (91)
FS2-8K14	SAW, FS2, 14", PUSH, 8.5 HP KOHLER	275 (125)
FS2-9H14	SAW, FS2, 14", PUSH, 9 HP HONDA	275 (125)
FS2-11H14	SAW, FS2, 14", PUSH, 11 HP HONDA	280 (127)
FS2-12K14	SAW, FS2, 14", PUSH, 12 HP KOHLER	280 (127)
FS2-13H14	SAW, FS2, 14", PUSH, 13 HP HONDA	280 (127)
Crated Weight (kgs.) 360 lbs (163)		

FS2 CONCRETE SAW — BASIC COMPONENTS

BASIC COMPONENTS

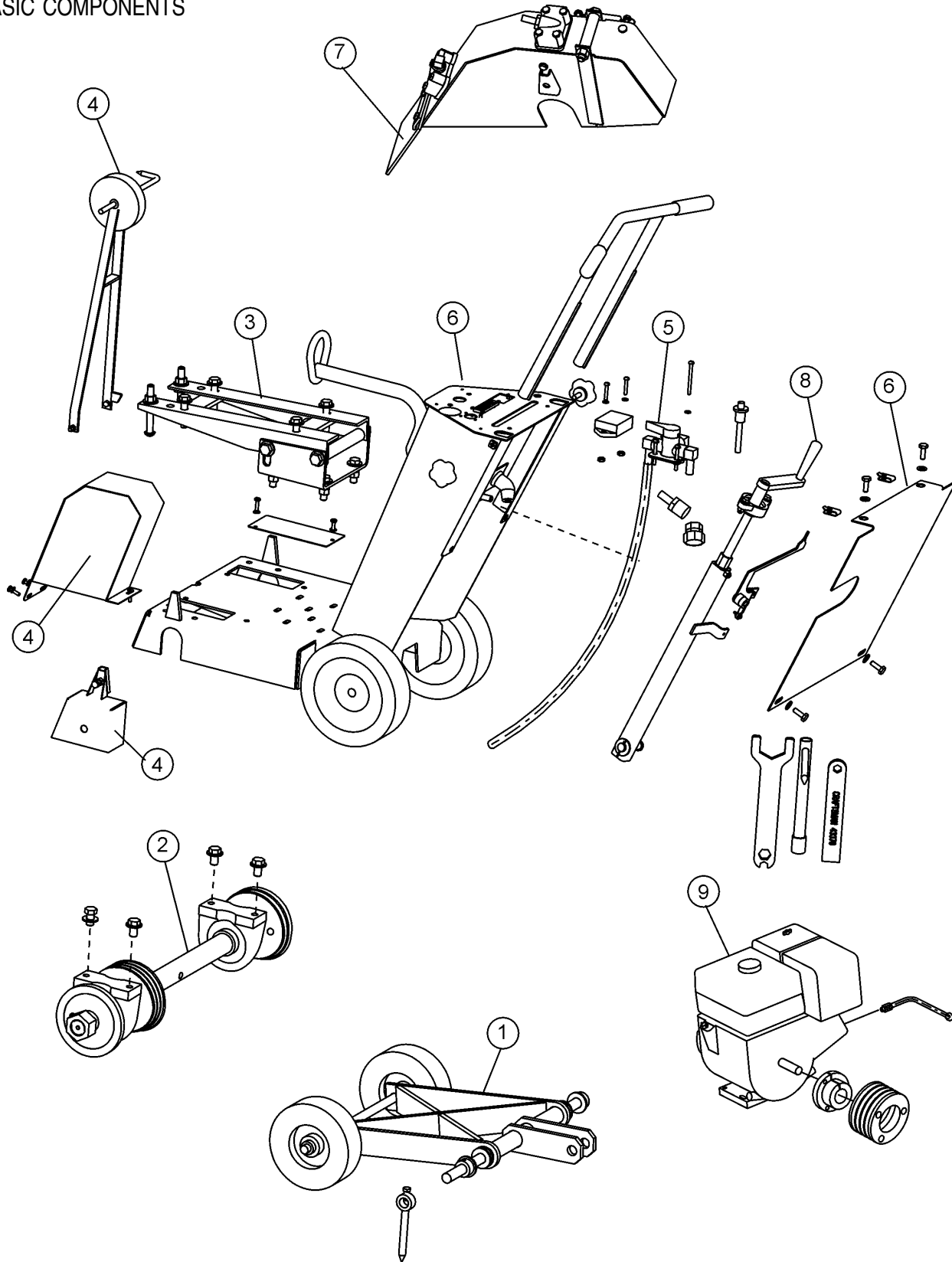


Figure 4. FS2 Concrete Saw Basic Components

FS2 CONCRETE SAW — BASIC COMPONENTS

BASIC COMPONENTS

<u>NO</u>	<u>DESCRIPTION</u>	<u>PAGE</u>
1	UNDER CARRIAGE ASSEMBLY	SEE PAGE 36
2	BLADE SHAFT ASSEMBLY	SEE PAGE 38
3	ENGINE MOUNT ASSEMBLY	SEE PAGE 40
4	POINTERS AND COVERS ASSEMBLIES	SEE PAGE 42
5	WATER SYSTEM ASSEMBLY	SEE PAGE 44
6	FS2 BASIC PLATFORM ASSEMBLY	SEE PAGE 46
7	14-INCH BLADE GUARD ASSEMBLY	SEE PAGE 48
7	18-INCH BLADE GUARD ASSEMBLY	SEE PAGE 50
8	RAISE/LOWER ASSEMBLY	SEE PAGE 52
9	GASOLINE ENGINE ASSEMBLIES	SEE PAGE 54

FS2 CONCRETE SAW — BASIC ENGINE COMPONENTS

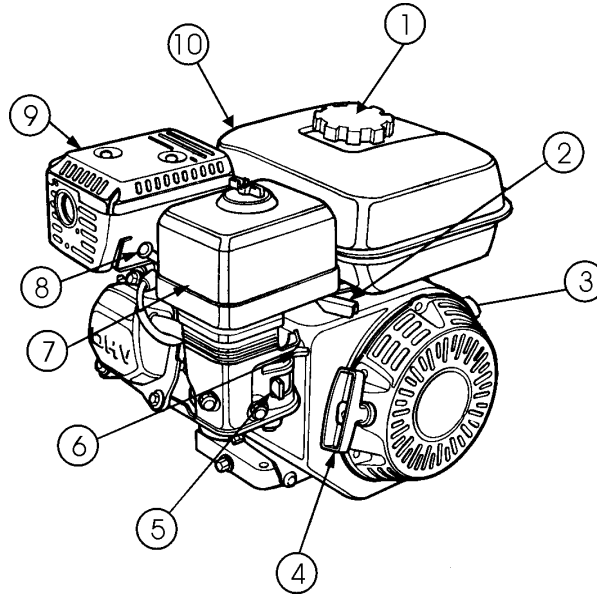


Figure 5. Engine Controls and Components

INITIAL SERVICING

The engine (Figure 5) must be checked for proper lubrication and filled with fuel prior to operation. Refer to the manufacturer's Engine manual for instructions & details of operation and servicing.

1. **Fuel Filler Cap** – Remove this cap to add unleaded gasoline to the fuel tank. Make sure cap is tightened securely. **DO NOT** over fill.



WARNING

Adding fuel to the tank should be accomplished only when the engine is stopped and has had an opportunity to cool down. In the event of a fuel spill, **DO NOT** attempt to start the engine until the fuel residue has been completely wiped up, and the area surrounding the engine is dry.

2. **Throttle Lever** – Used to adjust engine RPM speed (lever advanced forward **SLOW**, lever back toward operator **FAST**).
3. **Engine ON/OFF Switch** – ON position permits engine starting, OFF position stops engine operations.
4. **Recoil Starter (pull rope)** – Manual-starting method. Pull the starter grip until resistance is felt, then pull briskly and smoothly.

5. **Fuel Valve Lever** – **OPEN** to let fuel flow, **CLOSE** to stop the flow of fuel.
6. **Choke Lever** – Used in the starting of a cold engine, or in cold weather conditions. The choke enriches the fuel mixture.
7. **Air Cleaner** – Prevents dirt and other debris from entering the fuel system. Remove wing-nut on top of air filter canister to gain access to filter element.

NOTE

Operating the engine without an air filter, with a damaged air filter, or a filter in need of replacement will allow dirt to enter the engine, causing rapid engine wear.

8. **Spark Plug** – Provides spark to the ignition system. Set spark plug gap to 0.6 - 0.7 mm (0.028 - 0.031 inch) Clean spark plug once a week.
9. **Muffler** – Used to reduce noise and emissions.



WARNING

Engine components can generate extreme heat. To prevent burns, **DO NOT** touch these areas while the engine is running or immediately after operating. **NEVER** operate the engine with the muffler removed.

10. **Fuel Tank** – Holds unleaded gasoline. For additional information refer to engine owner's manual.

FS2 CONCRETE SAW — GENERAL INFORMATION

FAMILIARIZATION

The MQ Whiteman FS2 Series Concrete Saws are designed for wet or dry cutting utilizing diamond blades. They have been engineered for general, industrial and high production flat sawing applications. The exceptional performance of these saws centers around innovative features, top quality components, and committed attention to state-of-the-art manufacturing.

The reinforced heavy gauge steel frame and chassis assembly has been precisely jig welded to eliminate operational bending and/or flex that would lead to diminished blade performance. Additionally, the general weight-to-strength ratio design of the frame and chassis assembly provides for optimum weight distribution to keep the blade running true in the cut.

An innovative outboard blade shaft bearing assembly ensures minimal flutter and shaft harmonics providing the most advantageous condition for a diamond blade at operating speeds. Heavy duty front and rear axles, oversized reinforced wheels supported by roller wheel bearings and locking collars, and industrial under carriage assembly ensure accurate tracking and years of reliable use.

The positive locking Raise/Lower screw feed system with accurate depth gauge easily orients blade elevation, and will not permit blade creep during cutting operations.

A unique water plumbing system allows for independent orientation of either fluted floodwater to the blade for wet cutting applications or cones of aerosol mist to diminish material dust when dry cutting.

Operator control of the saw is safely accomplished with adjustable ergonomic handle bars, and a combination of conveniently oriented items on the console such as: Raise/Lower Handle, Tachometer/Hourmeter, 3-way water valve, depth feed gauge, and engine ON/OFF switch.

All FS2 saws are designed, engineered and manufactured with strict adherence to American National Standards Institute, Inc. (ANSI) guidelines B7.1 and B7.5.

POWER PLANTS

The FS2 Saw Series provides a variety of gasoline engine choices (Table 3). Selection of a specific engine, and its capacity measured in horsepower/torque, directly affects the performance of the diamond blade.

The FS2 series is generally classified in the industry as a "**LOW** to **MEDIUM**" horsepower saw. This classification is particularly useful when selecting the proper diamond blade for an application. Refer to the engine Owner's Manual for specific instructions regarding engine operation and maintenance practices.

TABLE 3. POWER PLANTS

ENGINE MFR.	HP	STARTING SYSTEM	AIR CLEANER	FUEL TANK GAL. (Liters)
HONDA	9	Manual	Cyclone Air Filtration	1.6 (6.1)
HONDA	11	Manual	Cyclone Air Filtration	1.7 (6.4)
HONDA	13	Manual	Cyclone Air Filtration	1.7 (6.4)
KOHLER	8.5	Manual	Cyclone Air Filtration	1.6 (6.1)
KOHLER	12	Manual	Cyclone Air Filtration	1.8 (6.8)

FS2 CONCRETE SAW — GENERAL INFORMATION

UNDER CARRIAGE SYSTEM

A jig welded heavy steel gauge under carriage assembly supports the saw in tracking, pivoting and stabilization. A 3/4" diameter rear axle supports two solid rubber (10" x 2.75" x 3/4") cast hub wheels with roller bearings, grease fittings and locking collars. A 5/8" diameter front axle supports two solid rubber (5" x 2" x 5/8") cast hub wheels with roller bearings, grease fittings and locking collars. The assembly pivots about the rear axle and is lubricated through a 90-degree grease fitting in the rear axle tube. See page 36.

BLADE DRIVE SYSTEM

An innovative blade shaft assembly has been specifically designed to support the optimum distribution of torque from the engine shaft to the blade shaft, and to ensure minimal vibratory conditions on the tips of the shaft.

Balanced engine & blade shaft pulleys are connected to their respect shafts via taper lock bushings, and three 3VX V-belts connect the engine pulley to the blade shaft pulley. The 1- 1/4" diameter blade shaft is supported by two self-aligning pillow block bearings that are uniquely positioned on the most outboard portion of the reinforced frame.

The combination of pulley and blade shaft bearing positioning ensures minimal vibration & flutter to the ends of the blade shaft. The blade drive system has been designed for left and right hand cutting. See page 38.

BLADE GUARD ASSEMBLY

The two-piece heavy gauge blade guard, available in 14" or 18". The 14" blade guard (standard) is designed with two fully independent water systems to meet the challenges of dry or wet cutting operations. First, a fluted floodwater manifold assembly supplies optimum volume and dispersal of water to both sides of the diamond blade for wet cutting applications.

The sizable (6") fluted tubes that direct the floodwater resist clogging and are easily removed for maintenance. Second, a true water misting manifold assembly provides specifically oriented cones of aerosol spray to the blade via two water jet nozzles.

The spray pattern and orientation, in conjunction with the design of the blade guard, provides exceptional dust suppression when cutting dry, and may also be desired when the job site requires minimal use of water.

The blade guard is removable for quick blade changes, and easily seats itself on the chassis bayonet fitting. The blade guard may be oriented for left or right hand cutting. See pages 48 and 50.

WATER SYSTEM

The FS2 Series employs an independent water system that provides either floodwater or aerosol misting water to the blade. For floodwater, two 6" fluted tubes are connected via a manifold, and are oriented inside the blade guard to provide optimum water volume and dispersal to both sides of the blade.

A separate water misting system (14" blade guard) utilizes specifically positioned spray nozzles that project a special cone of aerosol water to the blade when dry cutting and/or cutting operations that require minimal usage of water. This misting spray (approximately 5 gallons/hour), along with the geometry of the blade guard considerably diminish the dust signature generated by dry cutting. The water misting system requires approximately 40 psi of pressure for effective results.

A standard "garden hose" hookup valve connects the water source to the saw, and a 3-way water lever (OFF/MIST/FLOOD) is conveniently located on the console. See page 44.

CONSOLE

An ergonomically designed control console allows the operator to easily understand and/or operate the depth feed gauge, positive 3-way water valve, raise/lower control handle, digital engine tachometer/hourmeter, engine ON/OFF switch, handle bar assembly, and standard "garden hose" water hook up. A rear panel cover assembly is easily removed to permit access inside the console of the saw. See page 44.

MECHANICAL RAISE/LOWER SYSTEM

A positive locking mechanical raise and lower screw feed assembly supports elevation cycling operations. A crank raise/lower handle is located on the console with "**clockwise**" rotation providing lowering action, and "**counter-clockwise**" rotation providing raising action. An ACME precision screw and thread assembly provide accurate travel; while a spring loaded plunge ball system ensures positive height position locking.

A steel pointer assembly is synchronized with raise/lower handle rotations to accurately depict depth feed. See Table 4 for blade selection with respect to depth of cut. Blade orientation is referenced on the console's horizontal depth feed gauge (see page 52), and is calibrated for 12", 14", 16" and 18" diamond blades.

Diamond Blade Diameter (In.)	Depth of Cut
12"	3 5/8"
14"	4 5/8"
16"	5 5/8"
18"	6 5/8"

FS2 CONCRETE SAW — GENERAL INFORMATION

TACHOMETER/ HOURMETER

A self-powered digital Tachometer/Hourmeter keeps true running RPM and time. The operation is triggered by an external lead wrapped around the spark plug of the engine. When the engine is running, the display will read the RPM of the engine.

When the engine is off, the display will switch to run time (initially in minutes), and then switching to hours after the first hour of operation. This instrument provides quartz crystal solid-state technology, and is built with a custom chip and die bonding construction for maximum durability.

Figure 6 shows the location of the components of the FS2 Console. The function of each component is described below:

1. **Horizontal Depth Feed Gauge** – Indicates the blade cutting depth in inches. The scale allows for orientation of 12, 14, 16 and 18 inch diamond blades.
2. **3-Way Water Valve** – 3 position selector valve, OFF, Mist or Flood.
3. **Raise Lower Crank Handle** – Raises or lowers the cutting blade. This handle is used in conjunction with the horizontal depth gauge.
4. **Digital Tachometer/Hourmeter** – Indicates engine RPM's and operational hours saw has been in use.
5. **Engine ON/OFF Switch** – Pull this switch to permit the engine to be started by pull rope. Push the switch inward to stop the engine.

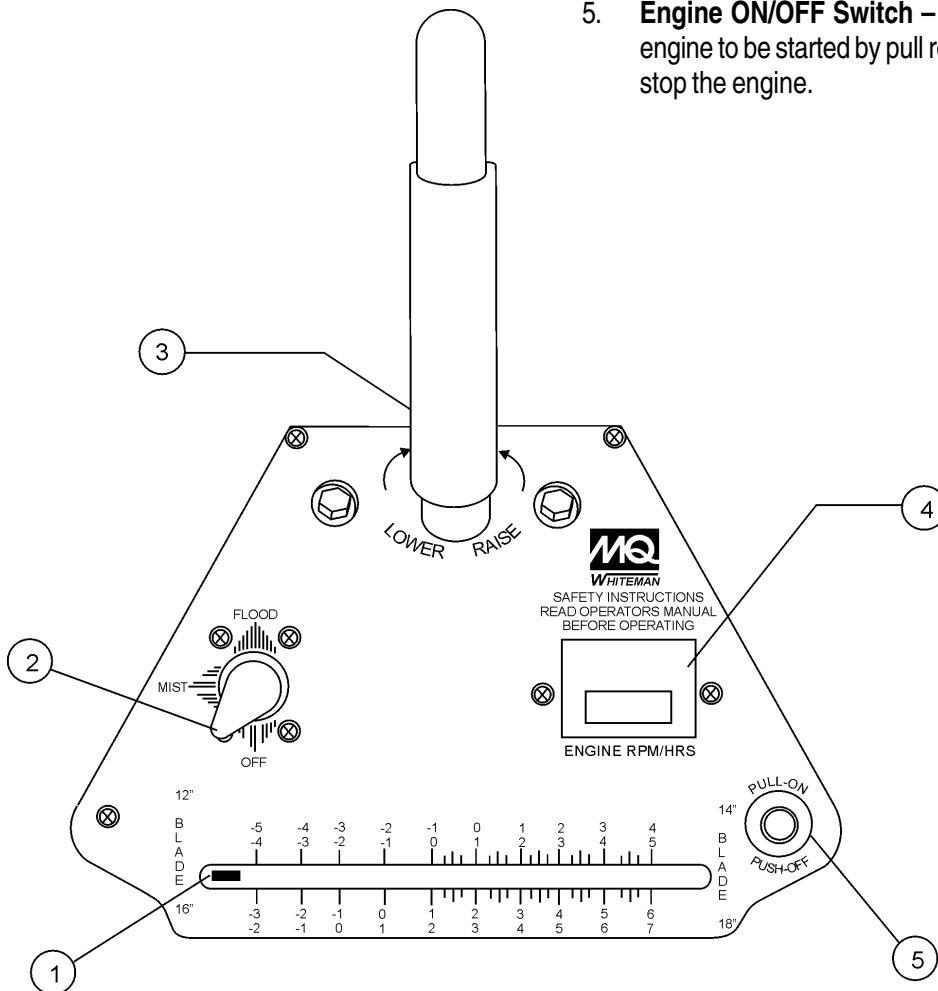


Figure 6. FS2 Concrete Saw Console

FS2 CONCRETE SAW — INSPECTION -ENGINE

Before Starting

1. Read safety instructions at the beginning of manual.
2. Clean the SAW, removing dirt and dust, particularly the engine cooling air inlet, carburetor and air cleaner.
3. Check the air filter for dirt and dust. If air filter is dirty, replace air filter with a new one as required.
4. Check carburetor for external dirt and dust. Clean with dry compressed air.
5. Check fastening nuts and bolts for tightness.

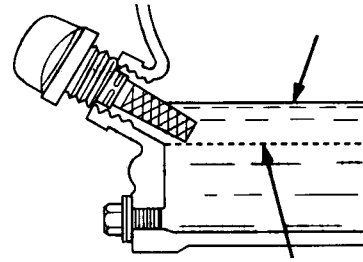


Figure 8. Engine Oil Dipstick (Oil Level)

Engine Oil Check

1. To check the engine oil level, place the saw on secure level ground with the engine stopped, and the diamond blade removed.
2. Remove the filler cap/dipstick from the engine oil filler hole (Figure 7) and wipe it clean.

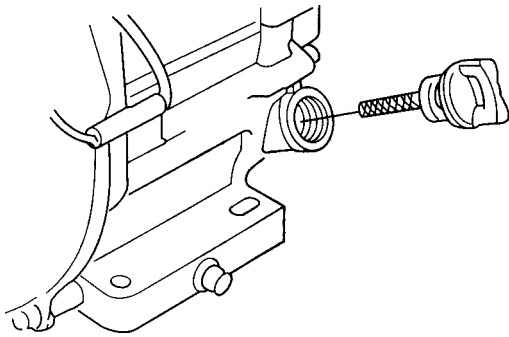


Figure 7. Engine Oil Dipstick (Removal)

3. Insert and remove the dipstick without screwing it into the filler neck. Check the oil level shown on the dipstick.
4. If the oil level is low (Figure 8), fill to the edge of the oil filler hole with the recommended oil type (Table 5). Maximum oil capacity is 400 cc.

NOTE

Reference manufacturer engine manual for specific servicing instructions.

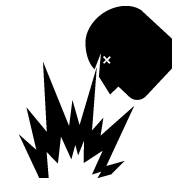
NOTE

Some engines used with the FS2 Concrete Saw have an oil Alert System. This system will automatically stop the in the event of low oil level. ALWAYS be sure to check the engine oil level prior to starting the engine.

Table 5. Oil Type

Season	Temperature	Oil Type
Summer	25°C or Higher	SAE 10W-30
Spring/Fall	25°C~10°C	SAE 10W-30/20
Winter	0°C or Lower	SAE 10W-10

Explosive Fuel



Gasoline Check

1. Remove the gasoline cap located on top of fuel tank.
2. Visually inspect to see if fuel level is low. If fuel is low, replenish with unleaded fuel.
3. When refueling, be sure to use a strainer for filtration. **DO NOT** top-off fuel. Wipe up any spilled fuel.

FS2 CONCRETE SAW — INSPECTION -BLADE

WARNING

Failure to thoroughly inspect the diamond blade (Figure 9) for operational safety could result in damage to the blade, the saw, and may cause injury to the user or others in the operating area.

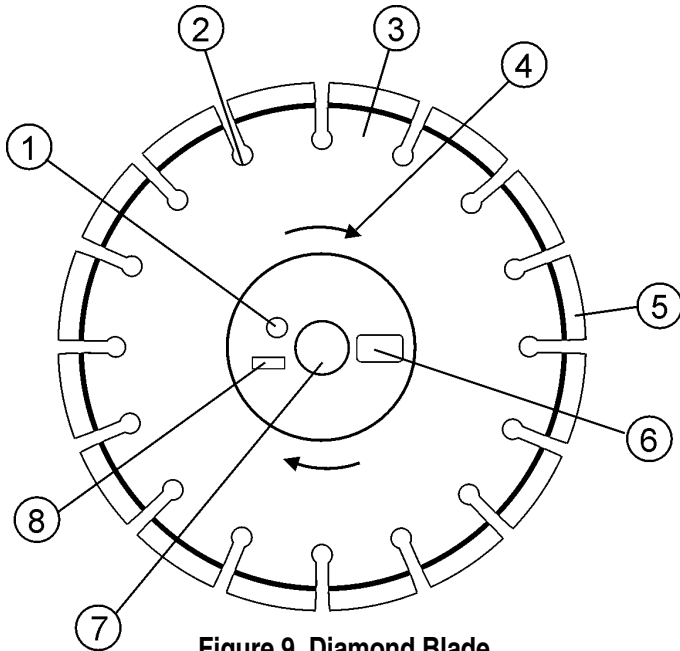


Figure 9. Diamond Blade

- 1. Drive Pin Hole** – A commonly located hole located on the diamond blade core that prevents operational blade slippage between the inner & outer blade flanges (collars). Inspect the diameter of the hole to ensure there is no distortion, and that a snug fit develops between the hole and drive pin.
- 2. Stress Relief Holes (Gullets)** – Check the steel core for cracks that may have propagated from the slots and/or gullets. Cracks indicate extreme fatigue failure and if sawing continues, catastrophic failure will occur.
- 3. Edge Of The Steel Core** – Check the diameter edge for discoloration (blue oxidation) indicating an overheating condition caused by insufficient cooling water/air. Overheating of blades may lead to loss of core tension and/or increase the possibility for blade failure. Check to make sure the steel core's width is uniform about the rim of the blade, and not succumbing to an "under cutting" condition brought about by highly abrasive material or improper under cutting core protection.
- 4. Directional Arrow** – Check to ensure that the blade is oriented properly on the blade shaft for sawing. Reference the directional arrow in the blade and place it so the direction of rotation "downcuts" with the turn of the shaft.
- 5. Diamond Segment or Rim** – Ensure there are no cracks, dings, or missing portions of the diamond segment/rim. **DO NOT use a blade that is missing a segment or a portion of the rim.** Damaged and/or missing segments/rims may cause damage to your saw, and injury to the user or others in the operating area.
- 6. Specifications** – Ensure that the blade specifications, size, and diameter properly match up to the sawing operation. Wet blades must have water to act as a coolant. Utilizing a diamond blade not matched properly to the task may result in poor performance and/or blade damage.
- 7. Arbor Hole** – It is essential that the arbor hole diameter properly matches the blade, and that it is free from distortions. Correct blade flanges (collars) must be used. The inside face of the flanges must be clean & free of debris. An out of round arbor condition will cause damage to the blade and the saw.
- 8. MAX RPM** – This RPM reference is the maximum safe operating speed for the blade selected. **NEVER** exceed the max RPM on the diamond blade. Exceeding the MAX RPM is dangerous, and may cause poor performance and may damage the blade.

FS2 CONCRETE SAW — INSPECTION -BLADE PLACEMENT

WARNING

Failure to thoroughly inspect the diamond blade (Figure 9) for operational safety could result in damage to the blade, the saw, and may cause injury to the user or others in the operating area.

NOTE

The following steps should be accomplished before placing the diamond blade on the **blade shaft**.

- Set the engine ON/OFF switch to the OFF position.
- Place the console ON/OFF button in the OFF position.
- Raise the saw to a high position by cranking the Raise/Lower handle in a counterclockwise direction.
- Use the Blade Nut Wrench & Blade Shaft Locking Wrench stored in the lower section of the console to install the diamond blade.
- Reference Figure 10 (Diamond Blade Placement) when removing or installing the diamond blade.



1. **Belt Guard** – Unscrew the guard security knob and remove the blade guard from its bayonet fitting and set it beside the saw.
2. **Blade Hex Nut** – Unscrew the [blade shaft nut “right hand” side loosens clockwise, and tightens counter clockwise], [blade shaft nut “left side” loosens counter clockwise and tightens clockwise]. Utilize the blade nut wrench and shaft lock wrench located on the lower inside console cavity. Do not overtighten the nut (approximately 45-50 ft.-lb/ 61-68 N/m) when finalizing the assembly.
3. **Outside Blade Flange (Collar)** – Ensure that the outside blade flange is placed flush against the diamond blade, and that the flange drive pin goes through the blade pin hole and seats properly into the inner flange drive pin hole. The inside surface of the flange must be free of debris and permit a tight closure on the surface of the blade core.

4. **Diamond Blade** – Ensure that the proper diamond blade has been selected for the job. Pay close attention to the directional arrows on the blade, clockwise for right-hand cutting and counter-clockwise for left-hand cutting, then place the blade onto the blade shaft, and ensure the arbor hole of the blade matches the diameter of the shaft.
5. **Blade Drive Pin** – Line up the blade drive pin with the inner flange (collar) pin hole. The blade’s operating directional arrows must point in a “down-cutting” direction (whether cutting on right side or left) to perform correctly.
6. **Inner Flange (Collar)** – This flange is fixed upon the blade shaft, and is manufactured with a drive pin hole. The inside surface of the flange must be free of debris and permit a tight closure on the surface of the blade.
7. **Blade Shaft Torque Hole** – A conveniently placed opening on the frame permits the use of the shaft lock wrench to assist in blade changes. The pointed end of the locking wrench fits into the saw frame hole and a machined hole in the blade shaft. Once in place, the blade shaft can not rotate making it easier to remove the blade nut.

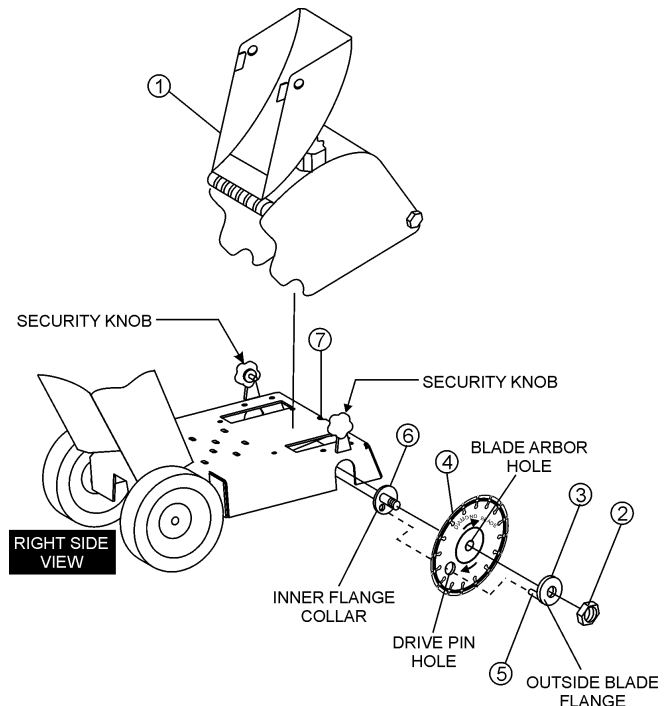
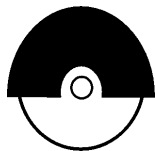


Figure 10. Diamond Blade Placement

FS2 CONCRETE SAW — INSPECTION -GUARDS, COVERS AND V-BELTS

Guards and Covers Check



NEVER operate the saw without blade guards and covers (Figures 11 and 12) in place. **DO NOT** operate with the front of the blade guard raised. The blade exposure cannot exceed 180 degrees during operations. Adhere to the safety guidelines of the **American National Standards Institute (ANSI) B7.1 and B7.5.**

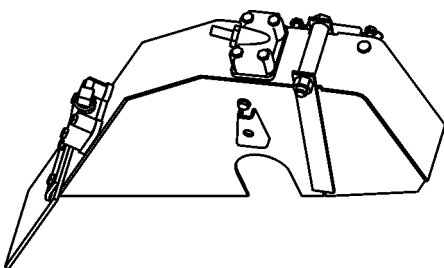


Figure 11. Blade Guard

CHECK the following on the "blade guard":

- Check to ensure the capacity of the blade guard matches the diameter of your diamond blade.
- Check that the guard seats firmly upon the bayonet fitting of the saw frame.
- Check that the spring tensioned front cover of the guard is firmly seated with the rear section of the guard, and there are no gaps.
- Check the fit of the water hoses about the two water manifolds (14" guard). **NEVER** lift the blade guard while cutting.
- Check that the flood water tubes and water jets are clear and open. Test the water supply for pressure and flow (to both sides of the blade) before sawing operations.

CHECK the following on the "blade flange cover":

- Check that the flange cover seats firmly upon the bayonet fitting of the saw frame prior to operation.
- This flange cover is to be in place when cutting from either the right or left side of the saw.

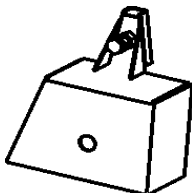


Figure 12. Blade Flange Cover

V-belts and Cover **CAUTION:**



NEVER attempt to check the V-belt with the engine running because severe injury can occur. Keep fingers, hands, hair and clothing away from all moving parts.

V-belts Alignment and Tensioning

This concrete saw is equipped with three premium V-belts that have been aligned and tensioned by factory personnel. All three V-belts **MUST** be installed for proper operation of the saw. Failure to run the saw with less than three belts may damage the saw or equipment.

Use the following procedure to check the alignment of V-belts:

1. Remove the 3 bolts that secure the V-belt cover (Figure 13) to the saw frame.

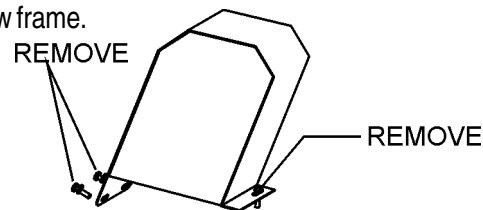


Figure 13. V-Belt Cover

2. Check uniform parallelism (Figure 14) of V-belts and pulley (sheaves). Use a straight edge or machinist's square against both pulleys and adjust both pulleys until equally aligned.

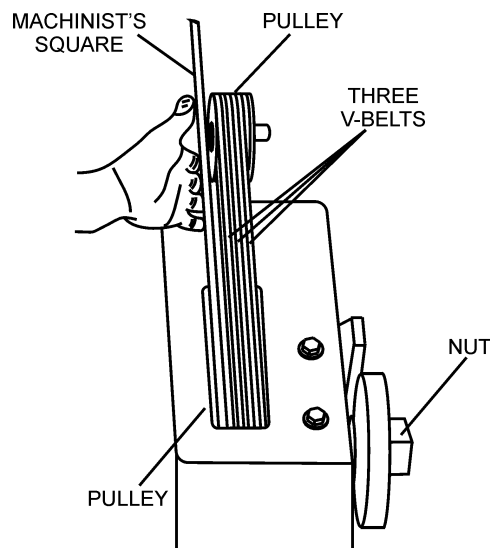


Figure 14. V-Belt Parallelism

FS2 CONCRETE SAW — INSPECTION -GUARDS, COVERS AND V-BELTS

3. Check V-belt tension (Figure 15) by using a tensionmeter (6.0 - 9.0 lbs) against the inside belt at a mid point between the two pulleys, or by deflecting the center belt at a mid point 3/8" (10mm) - 1/2" (13mm).

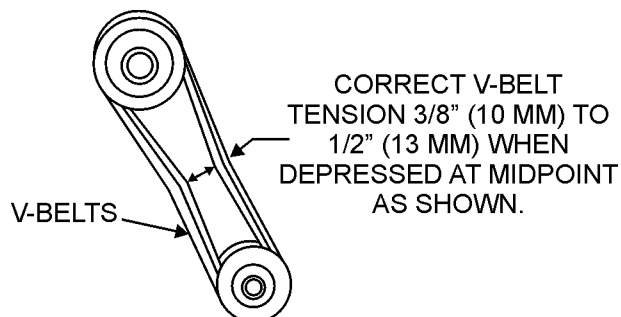


Figure 15. V-Belt Tension

4. **DO NOT** over or under tension the V-belts. Severe damage can occur to the saw and engine crank shaft if the belts are over tensioned. A decrease of power to the blade and poor performance will result if the belts are under tensioned (loose on pulleys).
5. If the V-belts becomes worn or loose, replace them by using V-belt part number 15082.

FS2 CONCRETE SAW— INITIAL START-UP

CAUTION:



DO NOT attempt to operate the saw until the Safety, General Information and Inspection sections have been read and understood. Depending on engine manufacturer, operating steps may vary. See engine manufacturer's operating manual. The following start-up procedure makes reference to a **HONDA** engine.

1. Ensure the diamond blade has been mounted correctly and that it is raised above the surface you are about to saw.
2. Connect to water source (as applicable) see item 14 on page 44 (Water System Assembly), and test for adequate flood water [4 to 5 gallons per minute (15 to 19 LT/min)], and/or misting water [steady geometric aerosol spray at 40 psi].
3. Place the **fuel valve lever** (Figure 16) to the "ON" position.

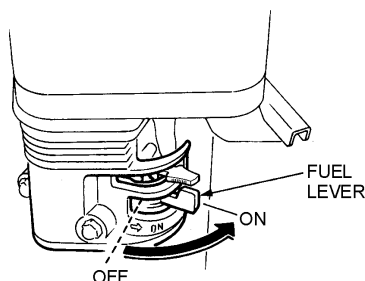


Figure 16. Fuel Valve Lever

4. Place the **Engine ON/OFF switch** (Figure 17) in the "ON" position.

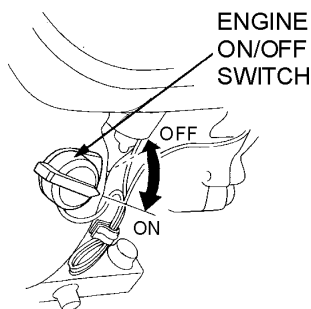


Figure 17. Engine ON/Off Switch

5. **PULL** the Console **Engine ON/OFF switch** (Figure 18) to the "PULL-ON" position.

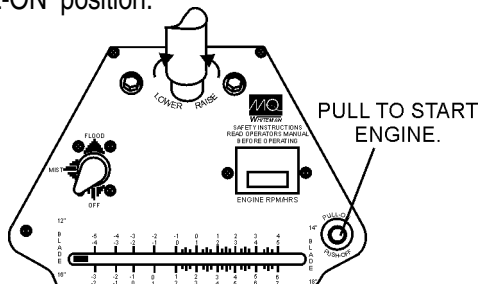


Figure 18. Console Engine ON/Off Switch

NOTE

The **CLOSED** position of the choke lever enriches the fuel mixture for starting a **COLD** engine. The **OPEN** position provides the correct fuel mixture for normal operation after starting, and for restarting a warm engine.

6. Place the **Choke Lever** (Figure 19) in the "OPEN" position

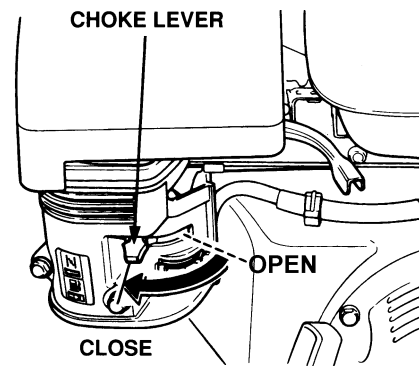


Figure 19. Choke Lever

CAUTION:



The engine governor speed has been set at the factory. Changing the governor speed could damage the blade and/or the saw.

7. Place the **throttle lever** (Figure 20) halfway between **fast** and **slow** for starting. All sawing is done at full throttle. The engine governor speed is factory set to ensure optimum blade operating speeds.

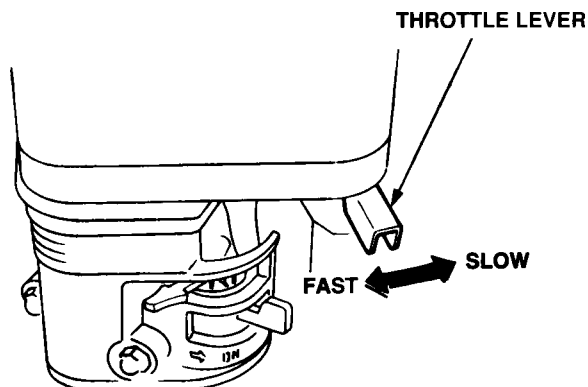


Figure 20. Throttle Lever

FS2 CONCRETE SAW — INITIAL START-UP

8. Grasp the starter grip (Figure 21) and slowly pull it out. The resistance becomes the hardest at a certain position, corresponding to the compression point. Pull the starter grip briskly and smoothly for starting.

CAUTION:



- **DO NOT** pull the starter rope all the way to the end.
- **DO NOT** release the starter rope after pulling. Allow it to rewind as soon as possible.

STARTER GRIP

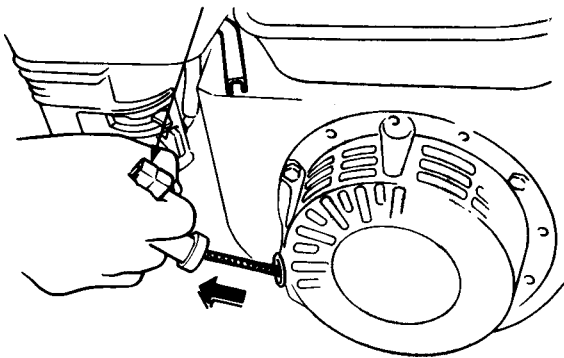


Figure 21. Starter Grip

9. If the engine has started, slowly return the choke lever (Figure 19) to the **CLOSED** position. If the engine has not started repeat steps 1 through 5.
10. Before the saw is placed into operation, run the engine for several minutes. Check for fuel leaks, and noises that would associate with a loose guard and/or covers.
11. All sawing is done at full throttle. Your engine governor has been set at the factory to ensure an optimum speed setting.

Stopping the Engine

NEVER stop the engine while the blade is in the cut, except for extreme emergencies. A sudden stoppage of the engine at high speed while in a cut could damage the blade and/or saw, and may cause injury to the user or other in the operating area.

1. Place the throttle lever (Figure 20) in the slow position, and listen for the engine speed to decrease.
2. Push the console engine ON/OFF switch (Figure 18) to the “OFF” position.
3. Place the engine ON/OFF switch (Figure 17) to the “OFF” position.
4. Place the fuel valve lever (Figure 16) to the “OFF” position.

Maneuvering The Saw



The blade is spinning whenever the engine is running.

Raise the blade high above the surface when maneuvering the saw. Damage to the blade and/or saw may occur if the blade strike the pavement.

CAUTION:



- **NEVER** stop the engine in the cut while working at high speeds, except for extreme emergencies.

FS2 CONCRETE SAW — OPERATION

Saw Alignment

1. The FS2 employs a front and rear pointer (Figure 22) that has been precisely aligned with the diamond blade at the factory. Referencing the figure below, accurate tracking is accomplished by referencing the front and rear pointer tips over the cut line. Precise saw direction is accomplished by slight operator pressure against the handle bars.

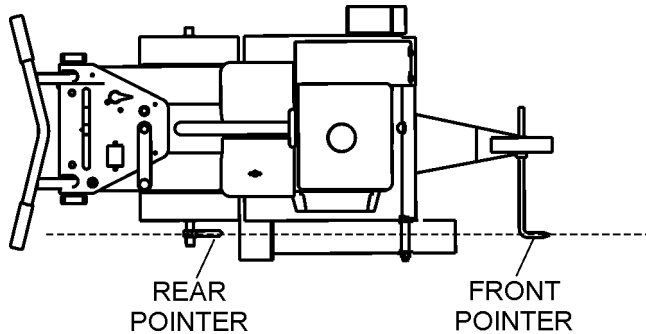


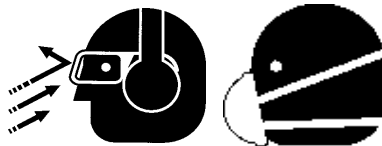
Figure 22. Saw Pointers (Front/Rear)

2. To reorient a pointer position, loosen the hex screw that secures the pointer bar to the shaft, adjust as necessary, and retighten the hex screw.
3. For operator comfort, an ergonomically designed handle bar adjusts by loosening two clamping knobs (page 46, item 8), and adjusts to the desired height. Tighten the knobs back down when the desired height is met.

Wet Saw Operation



WARNING



The operator must wear the appropriate protective equipment and clothing while engaged in sawing.

1. Connect hose from water source to the hose fitting connection (see item 14, page 44 "Water System Assembly") on the saw. The source pressure should be approximately 40 psi.
2. Select the "flood" position on the console (Figure 6), and ensure the proper flow and rate 4-5 gallons/ minute (15-19 Lt/min) is equally directed to both side of the blade.
3. Advance engine throttle to full (FAST) position.
4. Slowly lower the blade onto your cut line by cranking the Raise/Lower handle clockwise: while observing the depth of the cut desired by referencing the depth feed gauge (Figure 6). ***IF the water supply to your blade is interrupted, stop sawing immediately.***

5. Set the depth and saw only as the job conditions and specifications require. Unnecessary deep sawing is wasteful to the life of your blade.
6. The preferred method of sawing is to step cut in increments of 2" (51mm). "Step-cutting" provides the optimum opportunity for the blade to cut fast and last its longest.

CAUTION:



ALWAYS saw in a straight line only. Serious damage to the blade may occur if the saw is twisted or forced to cut radius shapes.

7. The rotation of the blade creates a tendency for the saw to pull in a particular direction (to the right if the blade is mounted on the right, to the left if the blade is mounted on the left).
8. To ensure a straight line of sawing, apply pressure to the appropriate handle as you slowly advance the saw forward. ***DO NOT force the blade to the cut any faster than its natural tendency.***



WARNING

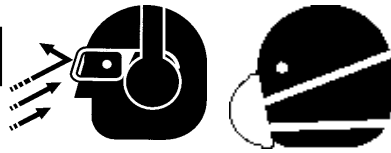
If the engine stalls for any reason during sawing, raise the blade out of the cut before restarting.



9. The operator must recognize and adhere to the optimum speed that the saw advances while sawing. ***DO NOT force the saw in the cut.*** Observe the engine tachometer from time to time to get the feel for a smooth sawing pace relative to RPM.
10. Factors for sawing economy:
 - Type of Blade
 - Depth of Cut
 - Sawing Speed
 - Characteristics of the Material Being Cut

FS2 CONCRETE SAW — OPERATION

Dry Saw Operation



Engine components can generate extreme heat.



The operator must wear the appropriate protective equipment and clothing while engaged in sawing.

1. Ensure the proper DRY Cutting blade is selected for the job.
2. With the 14" blade guard, select the "MIST" position (misting water) or the "OFF" position on the console (Figure 6). If misting water is desired, the water source must be able to deliver 40 psi of pressure to ensure an optimum spray pattern.
3. The Water Misting system is designed to suppress the dust signature caused by dry sawing. The aerosol spray pattern and blade guard design greatly diminish the amount of dust that is created. The misting water also acts as an added coolant for the blade.
4. The preferred method of sawing is to step cut in increments of 2" (51mm). "Step-cutting" provides the optimum opportunity for the blade to cut fast and last its longest. Airflow acts as a blade coolant during sawing. Cutting too deep with one pass, or exerting excessive forward/sideward pressure may damage the blade.

Finishing a Cut

1. Raise the blade out of the cut by cranking the Raise/Lower handle counter-clockwise (Figure 6). Raise the blade high enough out of the cut to clear the surface and allow the saw to be maneuvered.
2. Move the engine throttle lever to the idle (SLOW) position (Figure 20).
3. Push the console engine ON/OFF button to the "OFF" position (Figure 6).
4. Set the engine ON/OFF switch to the "OFF" position (Figure 6).
5. Place the three-way water valve (Figure 17) in the "OFF" position (as required).

Diamond Blades and Blade Speed

1. Diamond Sawing consists of cutting WET or DRY.
2. Matching the correct blade for the specific job and material being cut optimizes performance and value.
3. Selection of the proper diamond blade consists of:
 - Determining WET or DRY cutting
 - Material to be Cut
 - Type of Saw Being Used
 - Horsepower of Saw
 - Hardness Characteristics of the Material
 - Performance Expectations
4. Selecting the "grade" of diamond blade often defines the performance factors that can be achieved. Multiquip offers a variety of diamond blade grades to provide the desired level of value and performance.

Blade Speed

1. A diamond blade's performance is directly connected to specific peripheral (rim) speeds.
2. The following shaft rotational speeds have been factory set to ensure optimum blade performance.
 - FS2 14" Capacity-3,200 RPM.
 - FS2 18" Capacity-2,700 RPM.



Operating saw blades at rotational speeds greater than those specified by the manufacturer can cause blade damage, and may injure the user or others in the operating area.



FS2 CONCRETE SAW — MAINTENANCE

CAUTION:



General maintenance practices are crucial to the performance and longevity of your saw. The extreme environments of sawing operations require routine cleaning, lubrication, belt tensioning, and inspection for wear and damage



WARNING

The following procedures devoted to maintenance can prevent serious saw damage or malfunctioning. Before servicing or inspection, **ALWAYS** park the saw on a level surface with the blade removed, and the Console Engine ON/OFF switch & Engine ON/OFF switch in “OFF” position.



WARNING

Some maintenance operations may require the engine to be run. Ensure that the maintenance area is well ventilated. Exhaust contains poisonous carbon monoxide gas that can cause of unconsciousness and may result in **DEATH**



General Engine Care

1. **ENGINE CHECK:** Check daily for any oil and/or fuel leakage, thread nut & bolt tightness, and overall cleanliness.
2. **ENGINE OIL:** Check daily. Inspect with blade removed and saw frame level on a level surface. Keep the oil clean, and at the proper servicing level (Figure8). **DO NOT OVERFILL!** SAE 10W30 of SG is recommended for general use.
3. **ENGINE OIL CHANGE:** Change engine oil the first month or 20 hours of operation. Then every 3 months/ or 50 HOURS

NOTE

ALWAYS dispose of used oil in a responsible manner. Ensure that the disposition of all hazardous waste is handled properly. Call your Recycling Center for information about recycling engine oil.

4. **ENGINE AIR FILTER:** Clean air filter 2 TO 3 times daily when DRY cutting. See Engine Owner's Manual for detailed information.
5. **ENGINE TANK & STRAINER:** Clean every year/ or 300 hours.
6. **FUEL LINE:** Replace every two years/ or as necessary.
7. **SPARK PLUG:** Clean/adjust every 6 months/or 100 hours. Replace every year/ or 300 hours.

Bearing Lubrication Care

There are nine (9) grease points (zerk fittings, Figure 23) on the FS2 Concrete Saw. Use only Premium Lithium 12 based Grease, conforming to NLG1 Grade #2 consistency.



Figure 23. Zerk Fitting

1. **FRONT & REAR WHEELS:** Grease daily, see page 36, Under Carriage Assembly.
2. **BLADE SHAFT BEARINGS:** Grease daily, see page 38, Blade Shaft Assembly.

NOTE

When cutting **DRY**, lubricate blade shaft bearings 2 to 3 times daily. The grease can provide an added protective seal for the bearings.

3. **RAISE/LOWER DEPTH CONTROL BEARING:** Grease daily, see page 52, Manual Raise Lower Assembly
4. **ADJUST TUBE:** Grease daily, see page 52, Manual Raise Lower Assembly.
5. **AXLE ASSEMBLY:** Grease weekly/or 25 hours, see page 36, Under Carriage Assembly.

General Cleanliness

Clean the machine daily. Remove all dust and slurry build up. If the saw is steam cleaned, ensure that lubrication is accomplished **AFTER** steam cleaning operations.

Blade Shaft Bearing Replacement

The FS2 is supported by “tapped base lock collar (w/set screw)” self-aligning blade shaft bearings. These heavy duty bearings support the 1-1/4 blade shaft, and have grease (zerk) points (Figures 24 and 25) conveniently located for service.

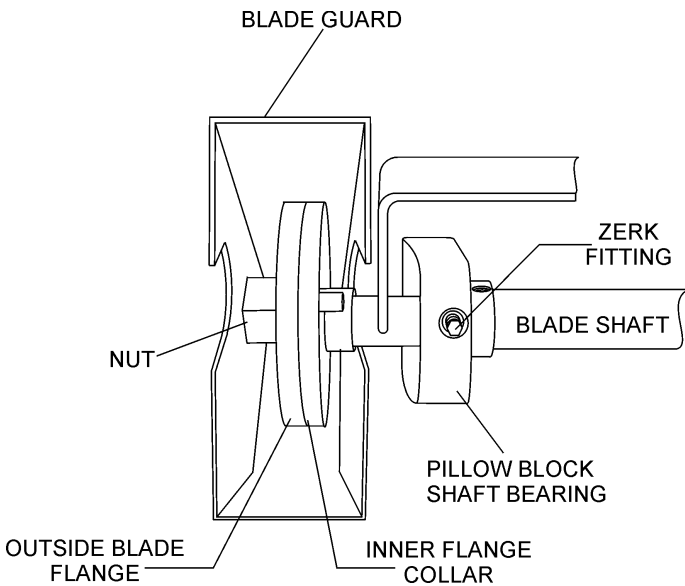


Figure 24. Left-Side Shaft Bearing

1. Reference pages 38 (Blade Shaft Assembly) and 40(Engine Mount Assembly).
2. Its recommended to replace both left & right hand bearings collectively.

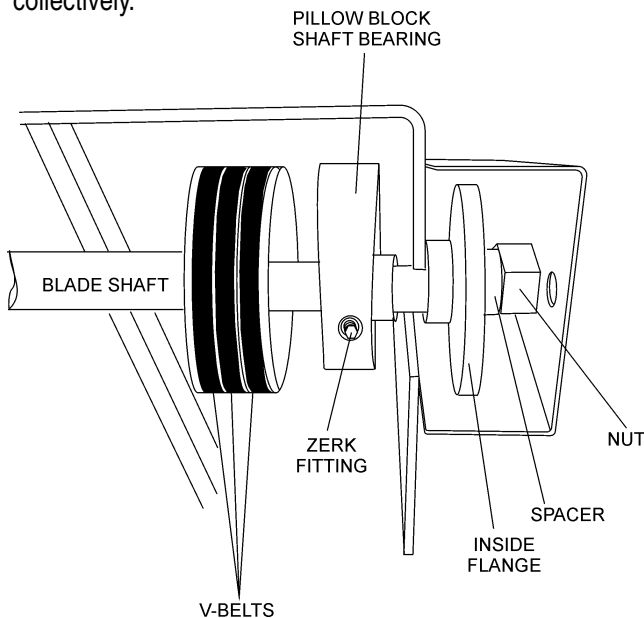


Figure 25. Right-Side Shaft Bearing

3. To loosen the tension on the three V-Belts perform the following:

- Remove the Belt Cover, item 4, page 42. (Pointers and Covers Assembly)
- Loosen the Carriage Bolts, item 11, page 40 (Engine Mount Assembly).
- Loosen the Hex Head Cap Screws, item 12, page 40 (Engine Mount Assembly).
- Rotate the engine down to provide slack in the V-Belts

Replacement of the Blade Shaft Bearings

4. Perform the following to replace the blade shaft bearings:
 - Remove Blade Flanges (items 7 and 8, page 38, Blade Shaft Assembly) as required to permit the Shaft Bearing(s) to slide off the Blade Shaft.
 - Loosen/remove Shaft Bearing(s) Hex Head Cap Screws, item 11, page 38.
 - Loosen Set Screw on the Blade Shaft Bearing collar.
 - Slide “old” Bearing(s) off the Blade Shaft and replace with “new” Bearing(s)- grease (zerk) fitting pointing forward, and the lock collar oriented to the “right” as you face the saw.
5. Loosely bolt the bearing(s) into place on the saw frame, then ensure the alignment by referencing past bearing positioning.
6. Tighten the hex head cap screw, item 11, page 38 to secure the Shaft Bearing (s) to the frame.
7. To complete the re-installation process , reverse the order of the above mentioned steps. For V-belt adjustment, see V-belt tension section on page 23 (Figure 14).

Raise/Lower Height Adjustment

The FS2 is equipped with an Raise/ Lower assembly that is supported by the following:

- ACME Screw
- Precision Thread
- Depth Gauge Bearing
- Depth Gauge Pointer
- Tube Height Adjustment

The height adjustment of the FS2 has been factory set utilizing precision standards.

Reference Manual Raise and Lower Assembly on page 52 unless otherwise noted.

Setting The Height Of The Depth Gauge Pointer

Perform the following to set the height of the Depth Gauge Pointer:

1. Place the saw on a level working surface.
2. Remove the rear panel cover, see page 46, item 9.
3. Install an appropriate new diamond blade on the saw and take reference to the diameter.
4. Lower the blade until flush contact is made with the level surface.
5. Loosen the two hex nuts, item 18, that tighten against the upper and lower rod ends, item 19.
6. Loosen the hex nut, item 13, that secures the plunge ball, item 12, depth lock against the adjustment tube.
7. Loosen (counter-clockwise) the plunge ball with an allen wrench. This will unlock the plunge ball from the ACME screw, item 9.
8. Set the blade height indicator to "0" (relative to the diameter of the blade and depth scale). See Figure 6, "Concrete Saw Console".
10. Remove the upper pan-head screw, item 20, to enable the rod end adjustments.
11. Adjust the rod ends as required to ensure that the throw of both rod ends and threaded rod, item 14, support the "0" position of the depth gauge located on the console.
12. Tighten the plunge ball, item 12, to the full depth against the ACME screw, item 9.
13. Unscrew the plunge ball, item 12, 1 **FULL TURN** (counter-clockwise).
14. Tighten the hex nuts, item 13, against the "Adjustment Tube", item 10, to lock the plunge ball in place.

V-Belt Tension Check

Check tension after first day of operations, then weekly/or 25 hours. Replace as required (see Figure 14). **NEVER operate with less than 3 belts.**

The FS2 is equipped with (3) premium 3VX V-belts (Figure 14) that provide optimum torque transfer.

The saw must be operated with **all** (3) V-belts, and must be adjusted collectively and properly to be effective

The V-Belt adjustment of the FS2 has been factory set utilizing precision standards. For V-Belt adjustments only, see page 23, V-belts Alignment Tensioning.

V-Belt Replacement

To replace the entire set of V-belts (3) perform the following procedure:

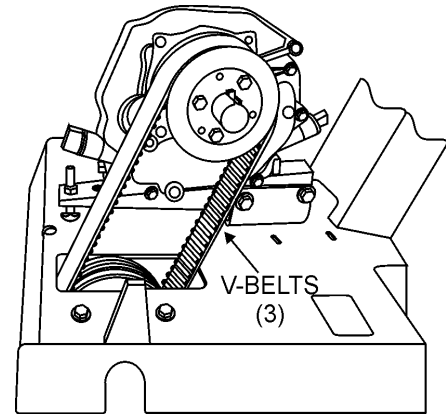


Figure 26. V-Belts

1. Reference pages 38 (Blade Shaft Assembly), 40 (Engine Mount Assembly) and 42 (Pointers and Covers Assembly).
2. Loosen the tension on the V-Belts.
3. Remove the Belt Cover, item 4, page 42.
4. Loosen the Carriage Bolts, item 11, page 40.
5. Loosen the Hex Head Cap Screws, item 12, page 40.
6. Rotate the engine down to provide slack in the V-Belts.
7. Loosen shaft bearing(s), hex head cap (shaft bearing) screws item 11, page 38.
8. Remove the (2) hex head cap screws, item 11, page 38, that support the 'pulley-side' blade shaft bearing.
9. Orient the blade shaft so the belt(s) to be replaced can slide off the blade shaft pulley and engine pulley.
10. Orient the replacement belt(s) around the blade shaft pulley and engine pulley.
11. Replace and tighten the (2) hex head cap shaft bearing screws, item 11, page 38.

V-Belt Tension

1. Adjust carriage bolts, item 11, page 40, until the proper belt tension is achieved.
2. Tighten the (2) hex head cap screws, item 12, page 40.
3. Replace the belt cover, item 4, page 42.

FS2 CONCRETE SAW — EXPLANATION OF CODE IN REMARKS COLUMN

How to read the marks and remarks used in this parts book.

Section 1: Items Found In the “Remarks” Column

Serial Numbers-Where indicated, this indicates a serial number range (inclusive) where a particular part is used.

Model Number-Where indicated, this shows that the corresponding part is utilized only with this specific model number or model number variant.

Section 2: Items Found In the “Remarks” Column

Serial Numbers-Where indicated, this indicates a serial number range (inclusive) where a particular part is used.

Model Number-Where indicated, this shows that the corresponding part is utilized only with this specific model number or model number variant.

Section 3: Items Found In the “Items Number” Column

All parts with same symbol in the number column, *, #, +, %, or ■, belong to the same assembly or kit.

Note: If more than one of the same reference number is listed, the last one listed indicates newest (or latest) part available.

NOTE

The contents of this parts catalog are subject to change without notice.

FS2 CONCRETE SAW — SUGGESTED SPARE PARTS

FS2 CONCRETE SAW 1 TO 3 UNITS

1 to 3 Units

Qty.	P/N	Description
1	15172	BLADE SHAFT ASSY. 14" W/FLANGES KIT
1	15065	SHAFT, BLADE
2	15063	FLANGE, BLADE INSIDE
1	15064	FLANGE, BLADE OUTSIDE
2	15119	KEY, WOODRUFF
2	15066	BEARING, PILLOW BLOCK
1	15092	NUT, BLADE, RIGHT-HAND
1	15093	NUT, BLADE, LEFT-HAND
1	6059B	KEY, 1/4" SQ. X 2"
3	15082	V-BELT, 3VXV355
2	15091	WHEELS, REAR
2	15090	WHEELS, FRONT
1	15097	WRENCH, ALL PURPOSE
1	15098	TOOL, SHAFT LOCK

FS2 CONCRETE SAW — TROUBLESHOOTING (ENGINE)

TABLE 6. ENGINE TROUBLESHOOTING

SYMPTON	POSSIBLE CAUSE	SOLUTION
Difficult to start, "fuel is available, but no SPARK at spark plug".	Spark plug bridging?	Check gap, insulation or replace spark plug.
	Carbon deposit on spark plug?	Clean or replace spark plug.
	Short circuit due to deficient spark plug insulation?	Check spark plug insulation, replace if worn.
	Improper spark plug gap?	Set to proper gap.
Difficult to start, "fuel is available, and SPARK is present at the spark plug".	Console or engine ON/OFF switch is shorted?	Check switch wiring, replace switch.
	Ignition coil defective?	Replace ignition coil.
	Improper spark gap, points dirty?	Set correct spark gap and clean points.
	Condenser insulation worn or short circuiting?	Replace condenser.
	Spark plug wire broken or short circuiting?	Replace defective spark plug wiring.
Difficult to start, "fuel is available, spark is present and compression is normal"	Wrong fuel type?	Flush fuel system, and replace with correct type of fuel.
	Water or dust in fuel system?	Flush fuel system.
	Air cleaner dirty?	Clean or replace air cleaner.
Difficult to start, "fuel is available, spark is present and compression is low"	Suction/exhaust valve stuck or protruded?	Re-seat valves.
	Piston ring and/or cylinder worn?	Replace piston rings and or piston.
	Cylinder head and/or spark plug not tightened properly?	Torque cylinder head bolts and spark plug.
	Head gasket and/or spark plug gasket damaged?	Replace head and spark plug gaskets.
No fuel present at carburetor.	Fuel not available in fuel tank?	Fill with correct type of fuel.
	Fuel cock does not open properly?	Apply lubricant to loosen fuel cock lever, replace if necessary.
	Fuel filter clogged?	Replace fuel filter.
	Fuel tank cap breather hole clogged?	Clean or replace fuel tank cap.
	Air in fuel line?	Bleed fuel line.

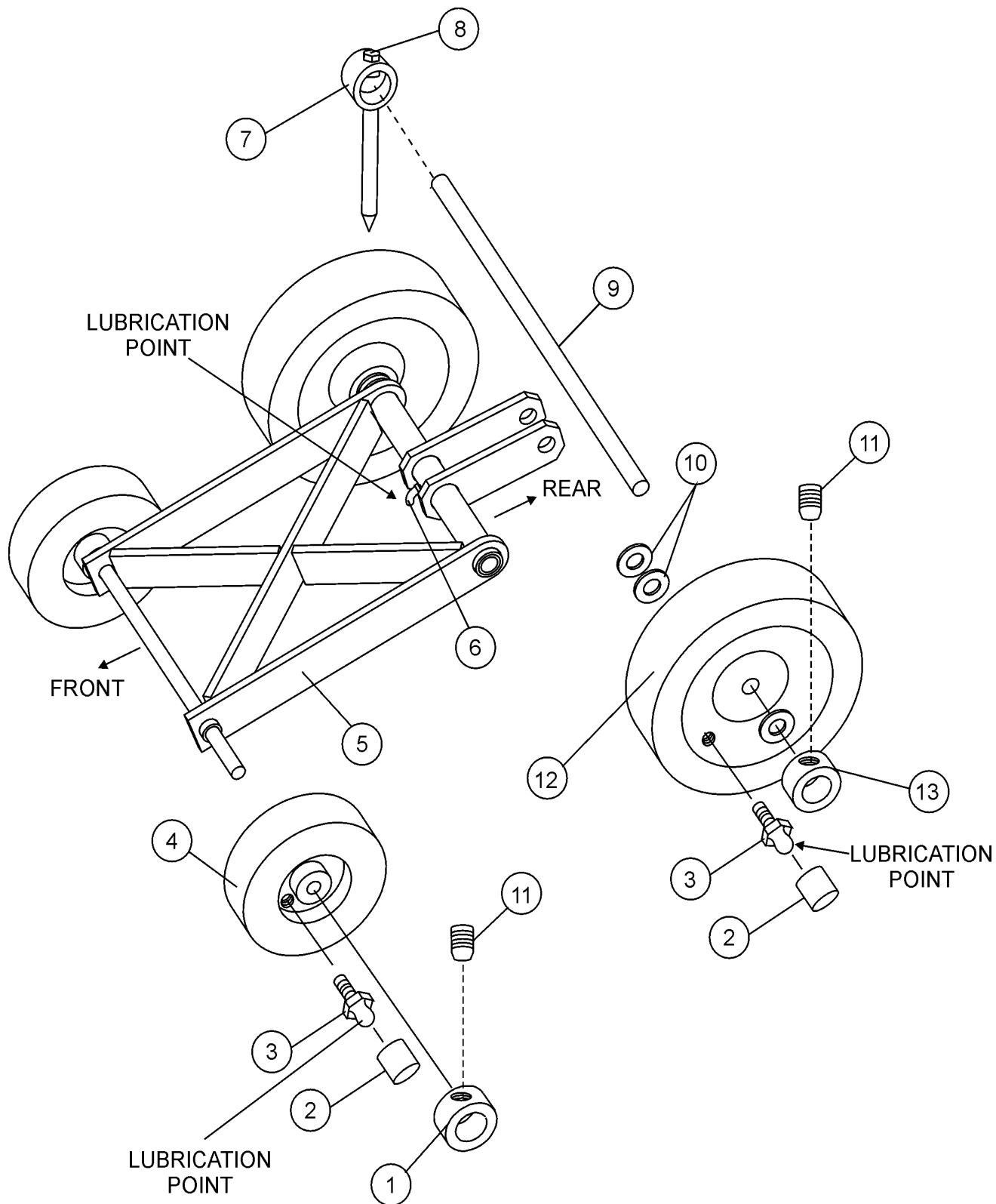
FS2 CONCRETE SAW — TROUBLESHOOTING (ENGINE)

TABLE 6. ENGINE TROUBLESHOOTING (CONTINUED)

SYMPTON	POSSIBLE CAUSE	SOLUTION
"Weak in power" compression is proper and does not misfire.	Air cleaner not clean?	Clean or replace air cleaner
	Improper level in carburetor?	Check float adjustment, re-build carburetor.
	Defective Spark plug?	Clean or replace spark plug.
	Defective Spark plug?	
"Weak in power" compression is proper but misfires.	Water in fuel system?	Flush fuel system, and replace with correct type of fuel.
	Dirty spark plug?	Clean or replace spark plug.
	Ignition coil defective?	Replace ignition coil.
Engine overheats.	Spark plug heat value improper?	Replace with correct type of spark plug.
	Correct type of fuel?	Replace with correct type of fuel
	Cooling fins dirty?	Clean cooling fins.
Rotational speed fluctuates.	Governor adjusted correctly?	Adjust governor.
	Governor spring defective?	Replace governor spring.
	Fuel flow restricted?	Check entire fuel system for leaks or clogs.
Recoil starter malfunction.	Recoil mechanism clogged with dust and dirt?	Clean recoil assembly with soap and water.
	Spiral spring loose?	Replace spiral spring.

FS2 CONCRETE SAW — UNDER CARRIAGE ASSY.

UNDER CARRIAGE ASSY.



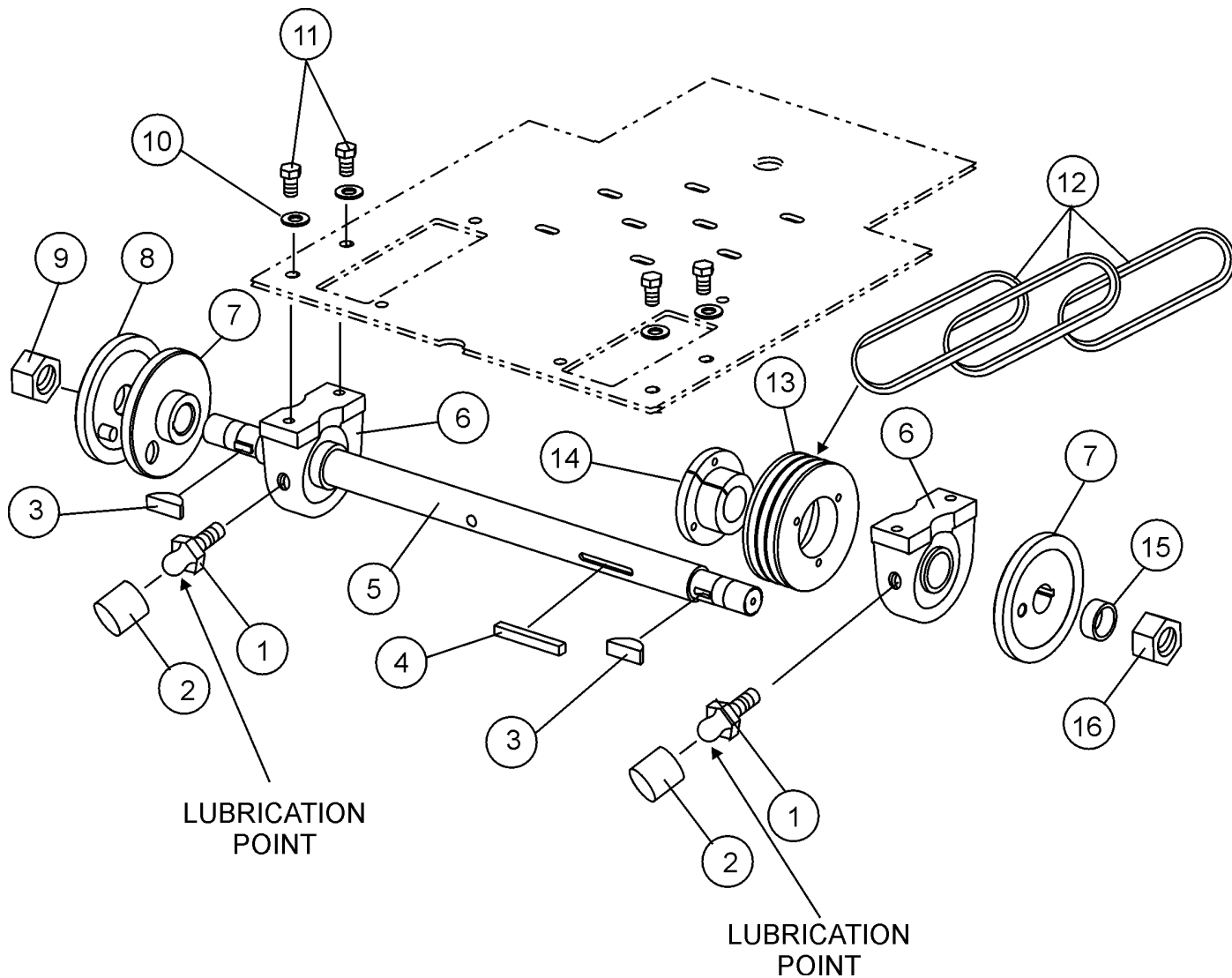
FS2 CONCRETE SAW — UNDER CARRIAGE ASSY.

UNDER CARRIAGE ASSY.

<u>NO</u>	<u>PART NO</u>	<u>PART NAME</u>	<u>QTY.</u>	<u>REMARKS</u>
1	15028	SET COLLAR 5/8 DIA	2	INCLUDES ITEM W/★
2	1162A	CAP, ZERK FITTING	4	
3	2621	ZERK FITTING	4	
4	15090	WHEEL 5.0 X 2W X .625 ID400 CAP	2	
5	15515	FRONT AXLE ASSY.	1	
6	16749	ZERK, GREASE 1/4-28 90 DEGREE	1	
7	15106	REAR, POINTER	1	
8	0655	SCREW, HHC 5/16-18 X 3/4	1	
9	15013	AXLE, REAR	1	
10	8151	WASHER, FLAT 3/4 SAE	6	
11★		SET SCREW	1	
12	15091	WHEEL, R 9.75 OD X 2.75W X75BB	2	
13	3615	COLLAR, SET 3/4 SAE	2	INCLUDES ITEM W/★

FS2 CONCRETE SAW — BLADE SHAFT ASSY.

BLADE SHAFT ASSY.



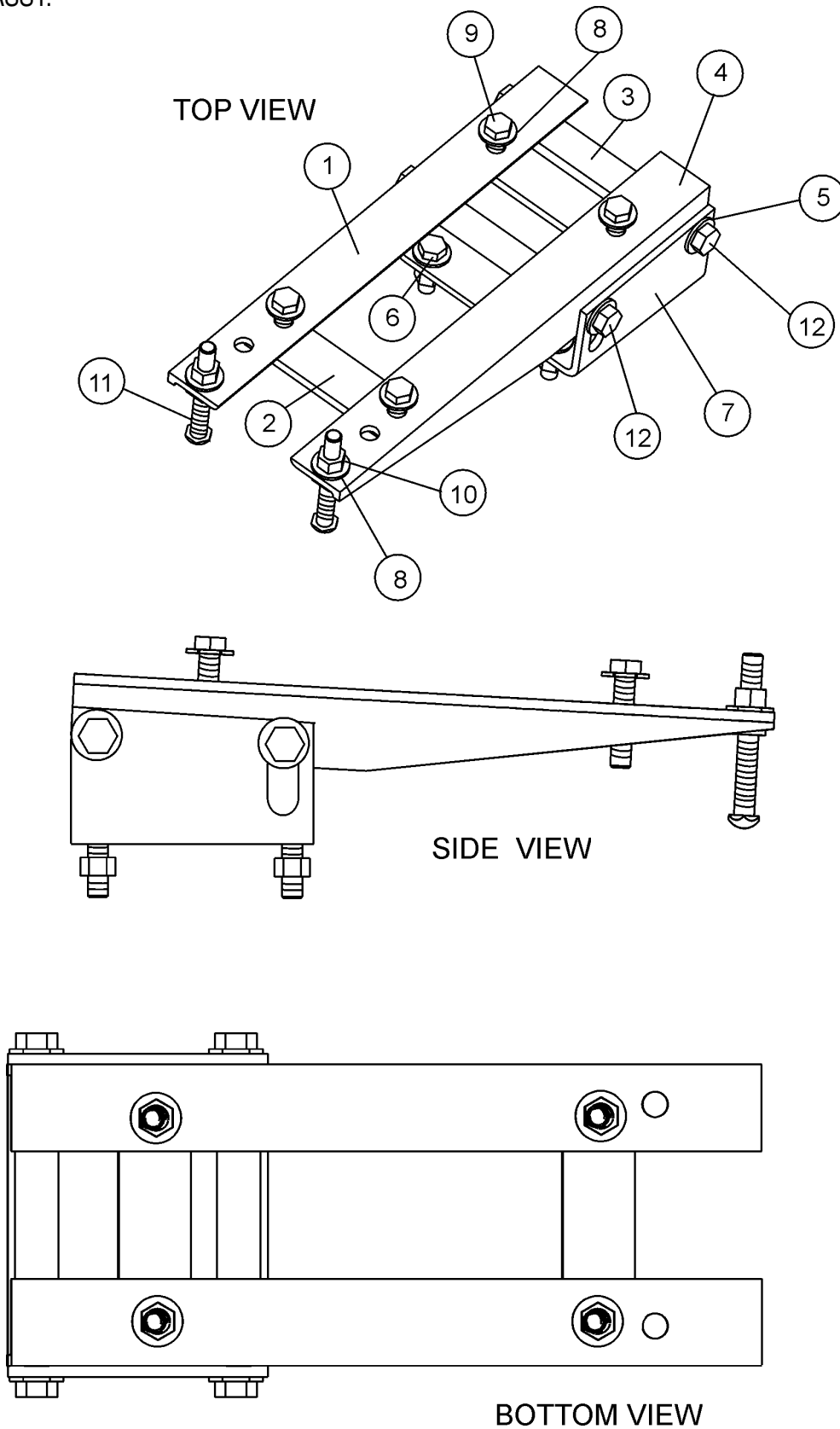
FS2 CONCRETE SAW — BLADE SHAFT ASSY.

BLADE SHAFT ASSY.

<u>NO</u>	<u>PART NO</u>	<u>PART NAME</u>	<u>QTY.</u>	<u>REMARKS</u>
1	2621	ZERK FITTING	2	
2	1162A	ZERK FITTING CAP	2	
3	15119	KEY, WOODRUFF	2	
4	6059B	KEY, 1/4 SQ X 2"	1	
5	15065	SHAFT, BLADE	1	
6	15066	BEARING, PILLOW BLOCK 1 1/4 BORE	2	
7	15063	FLANGE, BLADE INSIDE	2	
8	15012	FLANGE, DRIVEN ASSY.	1	
9	15093	NUT, 1-14-28-LH	1	
10	0448	WASHER, FLAT 7/16 SAE	4	
11	15563	SCREW, HHC 7/16-14 X 3/4	4	
12	15082	BELT, V BLADE 3X V335	3	
13	15061	PULLEY, TL 3V 4.50 OD	1	
14	15060	BUSHING, TL 1 1/4 BORE	1	
15	15148	SPACER, BLADE SHAFT	1	
16	15092	NUT, 1-14-28	1	

FS2 CONCRETE SAW — ENGINE MOUNT ASSY.

ENGINE MOUNT ASSY.



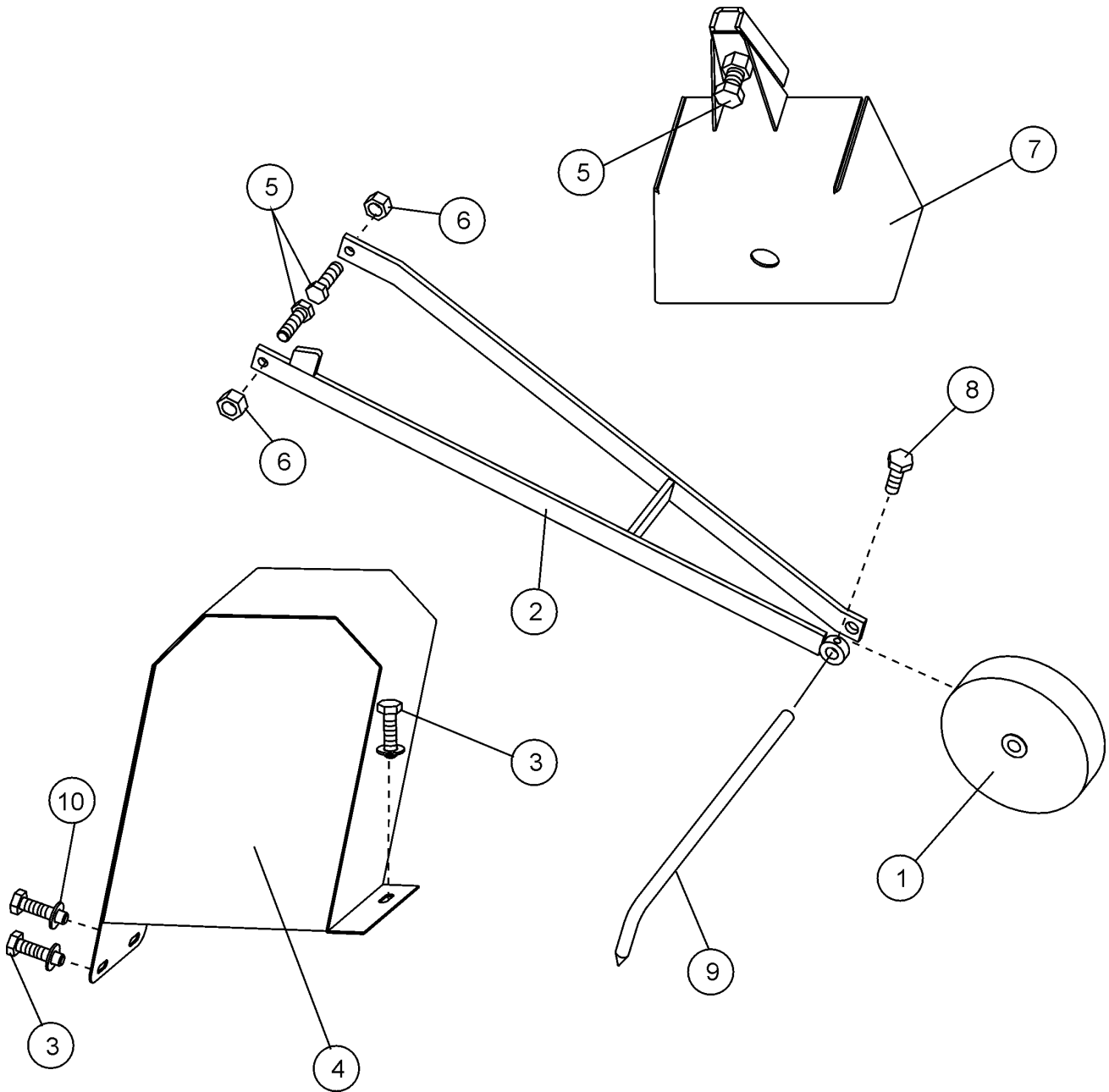
FS2 CONCRETE SAW — ENGINE MOUNT ASSY.

ENGINE MOUNT ASSY.

<u>NO</u>	<u>PART NO</u>	<u>PART NAME</u>	<u>QTY.</u>	<u>REMARKS</u>
1	15156	MOUNT,ENGINE, RIGHT, W/A	1	
2	15033	BAR THREADED	2	
3	15032	SPACER, PIPE	2	
4	15157	MOUNT,ENGINE, LEFT, W/A	1	
5	0448	WASHER, FLAT 7/16 SAE	4	
6	1023	SCREW, HHC 3/8-16 X 1-1/4	4	
7	15030	MOUNT, ENGINE BASE	1	
8	10136	WASHER, FLAT3/8 SAE	10	
9	9154	SCREW, HHC 3/8-16 X 1-3/4	4	
10	1456	NUT, HEX FINISH 3/8-16	6	
11	15174	BOLT, CARRIAGE 3/8-16 X 3	2	
12	15564	SCREW, HHC 3/8-16 X 1-3/4	2	

FS2 CONCRETE SAW — POINTERS AND COVERS ASSY.

POINTERS AND COVERS ASSY.



FS2 CONCRETE SAW — POINTERS AND COVERS ASSY.

POINTERS AND COVERS ASSY.

<u>NO</u>	<u>PART NO</u>	<u>PART NAME</u>	<u>QTY.</u>	<u>REMARKS</u>
1	15053	WHEEL, POINTER ARM	1	
2	15070	POINTER, FRONT W/A	1	
3	0730	SCREW, HHC 1/4-20 X 1	3	
4	15011	BELT COVER	1	
5	1023	SCREW, HHC 3/8-16 X 1-1/4	2	
6	10133	NUT, NYLOC 3/8-16	2	
7	15088	COVER, BLADE FLANGE	1	
8	0131A	SCREW, HHC 1/4-20 X 3/4	1	
9	15052	ROD, POINTER	1	
10	0948	WASHER, FLAT 1/4 SAE	3	

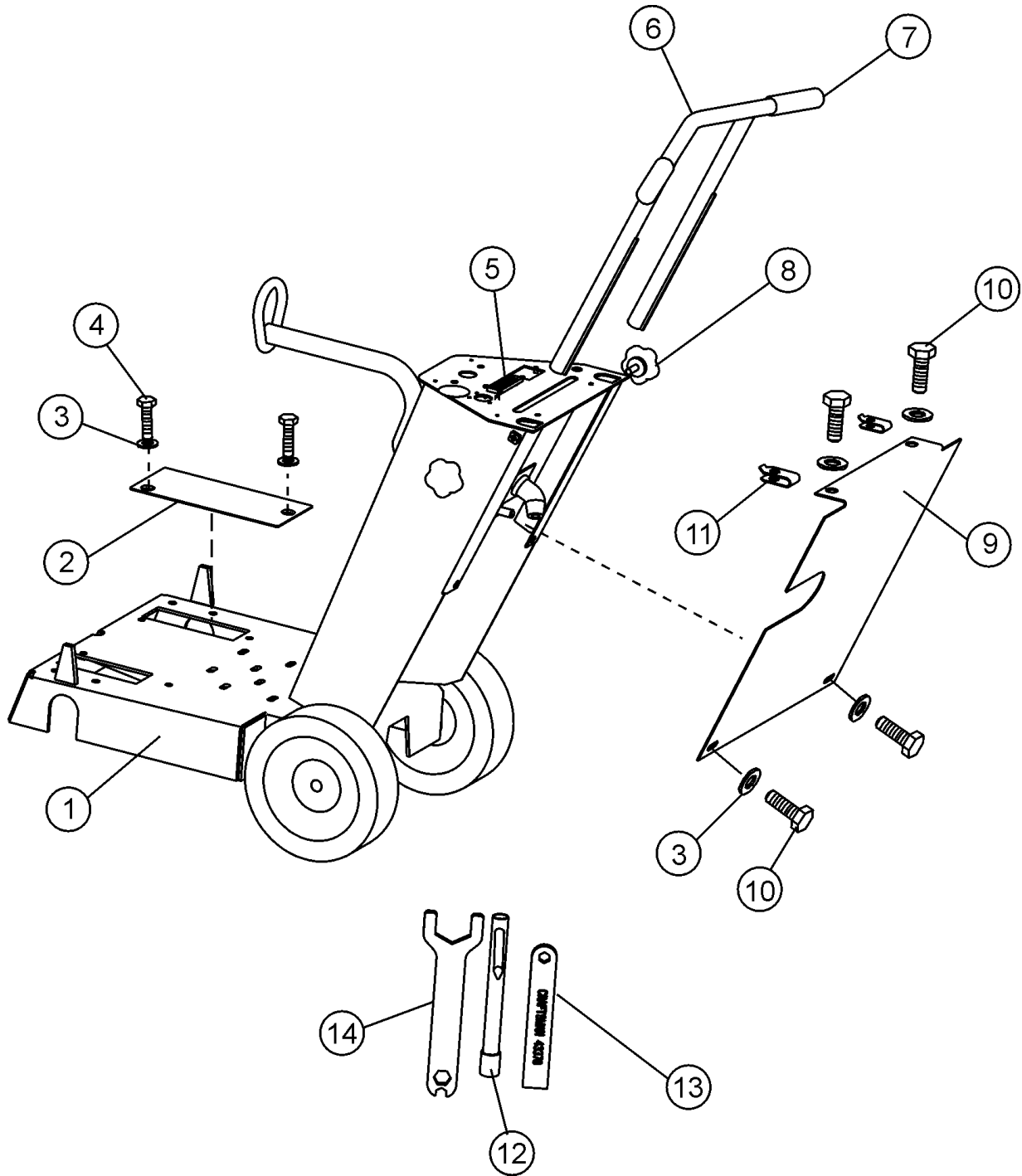
FS2 CONCRETE SAW — WATER SYSTEM ASSY.

WATER SYSTEM ASSY.

<u>NO</u>	<u>PART NO</u>	<u>PART NAME</u>	<u>QTY.</u>	<u>REMARKS</u>
1	15135	SUPPORT 3 WAY VALVE	1	
2	15181	HOSE, 3/8 BLACK WATER 200 PSI	8	
3	15538	CLAMP, WORM HOSE, 7/16-11/16	6	
4	15137	POINTER,3 WAY VALVE	1	
5	15183	PIN, ROLL 195X1	1	
6	15532	SCREW, PAN HEAD 8-32X2.0	1	
7	15176	SCREW, PAN HEAD 8-32X 1-1/2	3	
8	15502	SWITCH, ENG ON/OFF	1	
9	15533	HARNESS WIRE BUNDLE	1	
10	15062	VALVE 3 WAY 4 POSITION	1	
11	15669	FITTING,1/4 MPT90 3/8 HOSE BARB PL	3	
12	15180	FITTING, 1/2 NPT 3/8 BARB	1	
13	2190	SPACER, 0.25 00 X 0.25L .035W	1	
14	15544	FITTING, FNPTX 3/4 GARDEN HS BRASS	1	
15	15546	GASKET,3/4 HOSE GASKET/SCREEN	1	
16	15173	WASHER, FLAT #8	10	

FS2 CONCRETE SAW — BASIC PLATFORM ASSY.

BASIC PLATFORM ASSY.



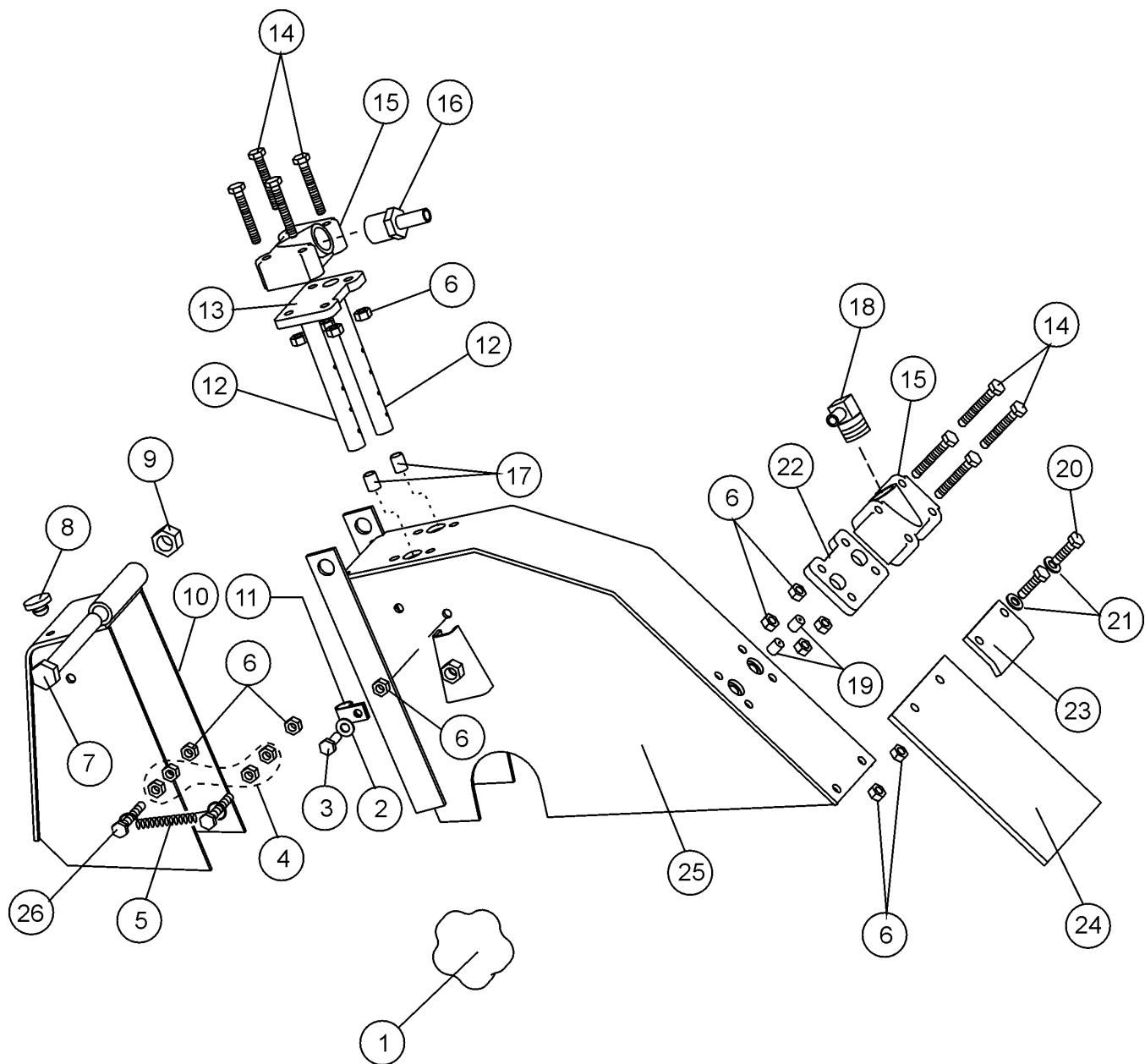
FS2 CONCRETE SAW — BASIC PLATFORM ASSY.

BASIC PLATFORM ASSY.

<u>NO</u>	<u>PART NO</u>	<u>PART NAME</u>	<u>QTY.</u>	<u>REMARKS</u>
1	15001	CHASSIS	1	
2	15105	PLATE, UPCUT SLOT COVER	1	
3	0948	WASHER, FLAT 1/4 SAE	6	
4	0730	SCREW, HHC 1/4-20 X1	2	
5	15664	DECAL, FS2 CONSOLE	1	
6	15018	HANDLEBAR	1	
7	15081	HANDLE, GRIPS 1" DIA	2	
8	15072	HANDLE, CLAMPING	2	
9	15084	PANEL, REAR COVER	1	
10	0131A	SCREW, HHC 1/4-20 X 3/4	4	
11	11534	NUT U TYPE 1/4-20	4	
12	15138	WRENCH, 6" POCKET SOCKET	1	
13	15098	TOOL, SHAFT LOCK SOCKET	1	
14	15097	WRENCH, ALL PURPOSE	1	

FS2 CONCRETE SAW — BLADE MIST 14-INCH ASSY.

BLADE MIST 14-INCH ASSY.



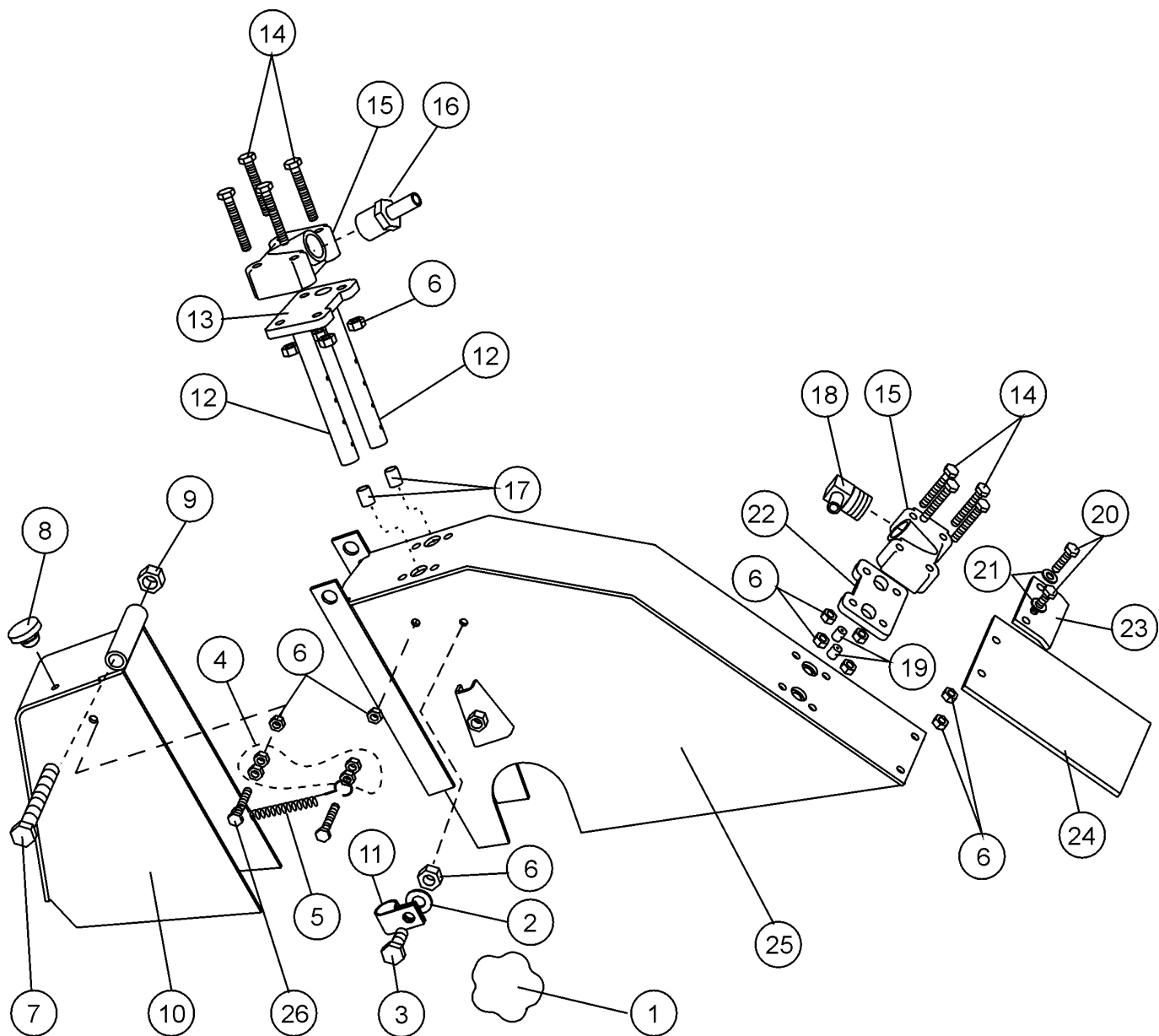
FS2 CONCRETE SAW — BLADE MIST 14-INCH ASSY.

BLADE MIST 14-INCH ASSY.

<u>NO</u>	<u>PART NO</u>	<u>PART NAME</u>	<u>QTY.</u>	<u>REMARKS</u>
1	15072	HANDLE, CLAMPING	1	
2	0948	WASHER, FLAT 1/4 SAE	4	
3	0131A	SCREW, HHC 1/4-20 X 3/4	2	
4	0949	NUT, HEX FINISH 1/4-20	4	
5	15509	SPRING, CENTURY SPRING	1	
6	10024	NUT, NYLOC 1/4-20 X 3/4	14	
7	8087	SCREW, HHC 1/2-13 X 4	1	
8	15161	STOP, RUBBER BUMPER	1	
9	10176	NUT, NYLOC 1/2-13	1	
10	15151	GUARD, BLADE 14" DOOR W/A	1	
11	15160	CLIP, CONDUIT 3/8	2	
12	15506	TUBE, FLOOD	2	
13	15507	GASKET, MANIFOLD FLOOD	1	
14	26250	SCREW, HHC 1/4-20 X 1-3/4	8	
15	15504	MANIFOLD (CIPSA)	2	
16	15180	FITTING, 1/2 NPT 3/8 BARB	1	
17	15508	PLUG (CIPSA)	2	
18	15560	FITTING, BRASS 90 1/2 MPT-6 BARB	1	
19	15086	NOZZLE, 5 GPH 80 DEG. SPRAY ANGLE	2	
20	0730	SCREW, HHC 1/4-20 X 1	2	
21	0948	WASHER, FLAT 1/4 SAE	4	
22	15562	GASKET, MANIFOLD MIST	1	
23	15096	ANGLE, SPLASH GUARD	1	
24	15043	FLAP, NEOPRINE WATER SHIELD	1	
25	15005	GUARD, BLADE 14" BODY W/A	1	
26	26250	SCREW, HHC 1/4-20 X 1-3/4	1	

FS2 CONCRETE SAW — BLADE MIST 18-INCH ASSY.

BLADE MIST 18-INCH ASSY.



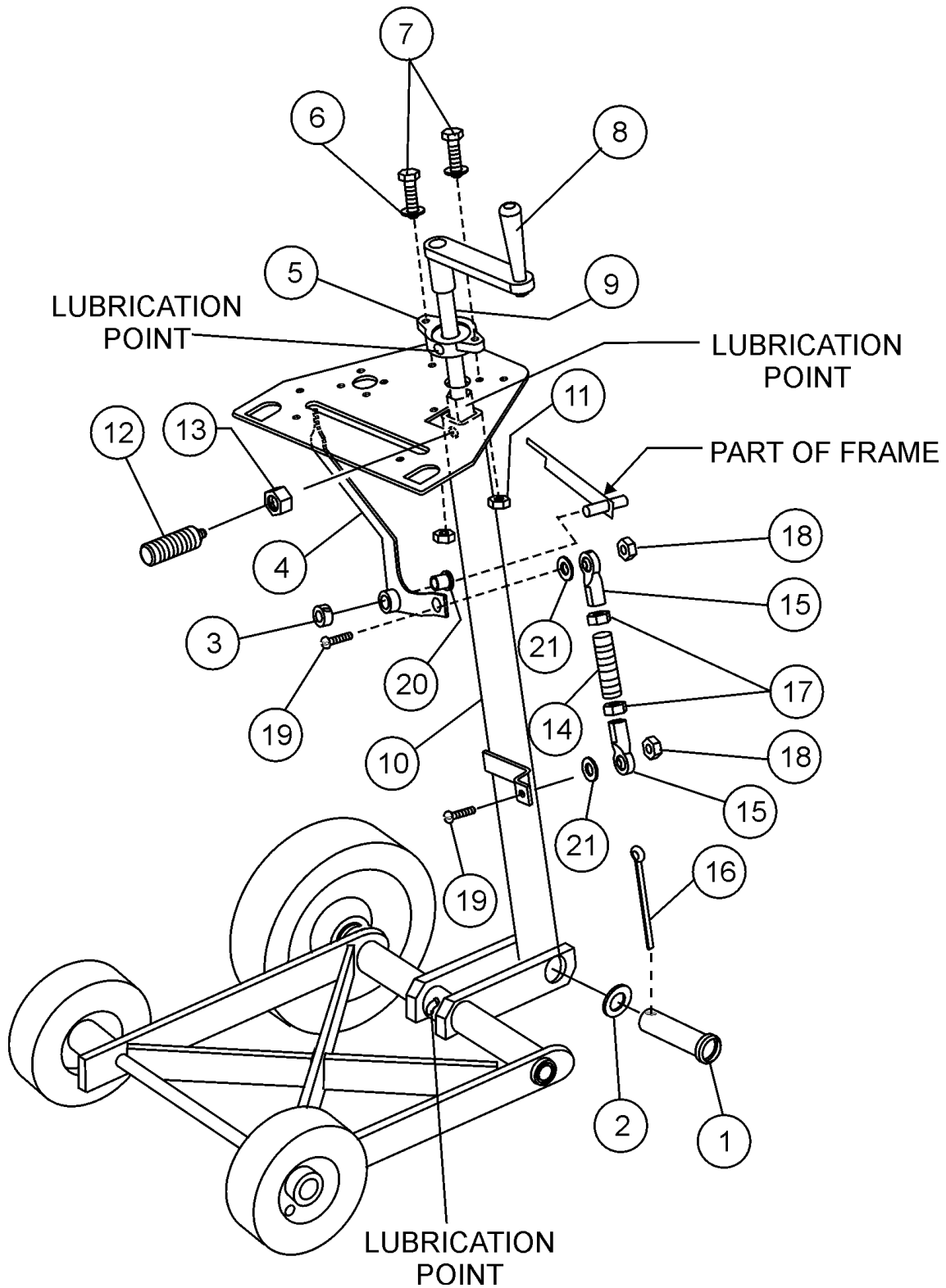
FS2 CONCRETE SAW — BLADE MIST 18 -INCH ASSY.

BLADE MIST 18-INCH ASSY.

<u>NO</u>	<u>PART NO</u>	<u>PART NAME</u>	<u>QTY.</u>	<u>REMARKS</u>
1	15072	HANDLE, CLAMPING	1	
2	0948	WASHER, FLAT 1/4 SAE	4	
3	0131A	SCREW, HHC 1/4-20 X 3/4	2	
4	0949	NUT, HEX FINISH 1/4-20	4	
5	15509	SPRING, CENTURY SPRING	1	
6	10024	NUT, NYLOC 1/4-20 X 3/4	14	
7	8087	SCREW, HHC 1/2-13 X 4	1	
8	15161	STOP, RUBBER BUMPER	1	
9	10176	NUT, NYLOC 1/2-13	1	
10	15449	GUARD, BLADE 18" DOOR W/A	1	
11	15160	CLIP, CONDUIT 3/8	2	
12	15506	TUBE, FLOOD	2	
13	15507	GASKET, MANIFOLD FLOOD	1	
14	26250	SCREW, HHC 1/4-20 X 1-3/4	8	
15	15504	MANIFOLD (CIPSA)	2	
16	15180	FITTING, 1/2 NPT 3/8 BARB	1	
17	15508	PLUG (CIPSA)	2	
18	15560	FITTING, BRASS 90 1/2 MPT-6 BARB	1	
19	15086	NOZZLE, 5 GPH 80 DEG. SPRAY ANGLE	2	
20	0730	SCREW, HHC 1/4-20 X 1	2	
21	0948	WASHER, FLAT 1/4 SAE	4	
22	15562	GASKET, MANIFOLD MIST	1	
23	15096	ANGLE, SPLASH GUARD	1	
24	15043	FLAP, NEOPRINE WATER SHIELD	1	
25	15204	GUARD, BLADE 18" BODY W/A	1	
26	26250	SCREW, HHC 1/4-20 X 1-3/4	1	

FS2 CONCRETE SAW — MANUAL RAISE AND LOWER ASSY.

MANUAL RAISE AND LOWER ASSY.



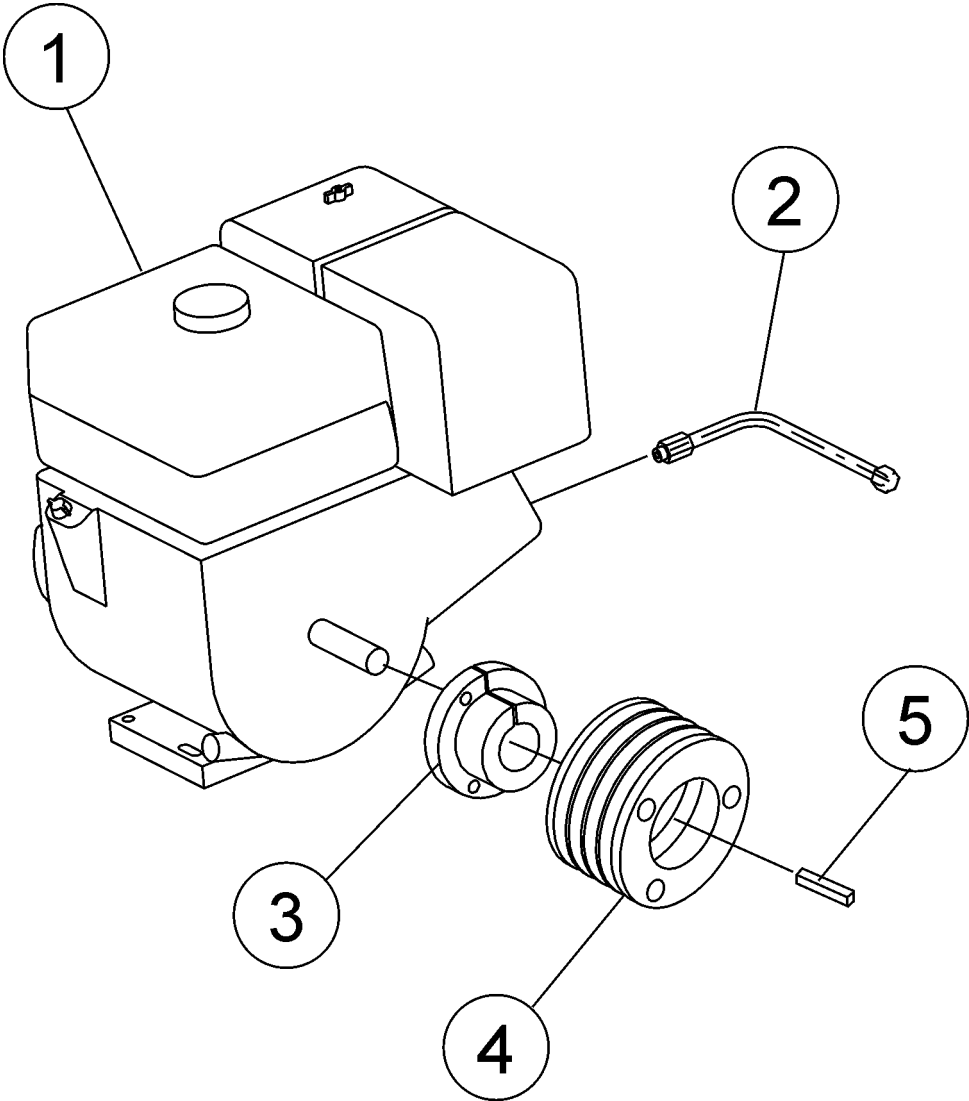
FS2 CONCRETE SAW — MANUAL RAISE AND LOWER ASSY.

MANUAL RAISE AND LOWER ASSY.

<u>NO</u>	<u>PART NO</u>	<u>PART NAME</u>	<u>QTY.</u>	<u>REMARKS</u>
1	15083	PIN, HEADED BLADE ADJUST	1	
2	8151	WASHER, FLAT 3/4 SAE	1	
3	1577	SET COLLAR, 1/2	1	
4	15517	POINTER, DEPTH GAUGE ASSY.	1	
5	15080	BEARING, DEPTH GAUGE	1	
6	10136	WASHER, FLAT 3/8 SAE	2	
7	1023	SCREW, HHC 3/8-16 X 1-1/4	2	
8	15050	KNOB, 3/8 X 16 X 2, 1-INCH OD, 3.88L	1	
9	15008	HANDLE, BLADE ADJUSTMENT ASSY.	1	
10	15007	TUBE, HEIGHT ADJUSTMENT ASSY.	1	
11	10133	NUT, NYLOC 3/8-16	2	
12	15054	PLUNGE, BALL	1	
13	1456	NUT, HEX FINISH 3/8-16	1	
14	15130	ROD, THREADED 1.63	1	
15	15120	ROD, END, 10-32 FEMALE RH	2	
16	2219	PIN, COTTER 1/8 X 1/2	1	
17	16723	NUT, HEX FIN 8-32	2	
18	13287	NUT, NYLOC 8-32	2	
19	15175	SCREW, PAN HEAD 8-32 X 3/4	2	
20	15127	SPACER, PIVOT	1	
21	15173	WASHER, FLAT #8	2	

FS2 CONCRETE SAW — ENGINE ASSY.

ENGINE ASSY.



FS2 CONCRETE SAW — ENGINE ASSY.

ENGINE ASSY.

<u>NO</u>	<u>PART NO</u>	<u>PART NAME</u>	<u>QTY.</u>	<u>REMARKS</u>
1	15511	ENGINE, 8.5HP KOHLER COMMAND	1	
1	15101	ENGINE, 9HP HONDA GX270K1QXC9	1	
1	N/A	ENGINE, 10HP KOHLER COMMAND	1	
1	15102	ENGINE, 11HP HONDA GX340K1QXC9	1	
1	N/A	ENGINE, 12HP KOHLER COMMAND	1	
1	15103	ENGINE, 13HP HONDA GX390K1QXC9	1	
2	15535	OIL DRAIN ASSY.	1	
3	15058	BUSHING, TL 1" BORE	1	
4	15059	PULLEY, TL 3V 4.12" OD	1	
5	6059B	KEY, 1/4"SQ. X 2"	1	

PAYMENT TERMS

Terms of payment for parts are net 10 days.

FREIGHT POLICY

All parts orders will be shipped collect or prepaid with the charges added to the invoice. All shipments are F.O.B. point of origin. Multiquip's responsibility ceases when a signed manifest has been obtained from the carrier, and any claim for shortage or damage must be settled between the consignee and the carrier.

MINIMUM ORDER

The minimum charge for orders from Multiquip is \$15.00 net. Customers will be asked for instructions regarding handling of orders not meeting this requirement.

RETURNED GOODS POLICY

Return shipments will be accepted and credit will be allowed, subject to the following provisions:

1. A Returned Material Authorization must be approved by Multiquip prior to shipment.
2. To obtain a Return Material Authorization, a list must be provided to Multiquip Parts Sales that defines item numbers, quantities, and descriptions of the items to be returned.
 - a. The parts numbers and descriptions must match the current parts price list.
 - b. The list must be typed or computer generated.
 - c. The list must state the reason(s) for the return.
 - d. The list must reference the sales order(s) or invoice(s) under which the items were originally purchased.
 - e. The list must include the name and phone number of the person requesting the RMA.
3. A copy of the Return Material Authorization must accompany the return shipment.

4. Freight is at the sender's expense. All parts must be returned freight prepaid to Multiquip's designated receiving point.
5. Parts must be in new and resalable condition, in the original Multiquip package (if any), and with Multiquip part numbers clearly marked.
6. The following items are not returnable:
 - a. Obsolete parts. (If an item is listed in the parts price book as being replaced by another item, it is obsolete.)
 - b. Any parts with a limited shelf life (such as gaskets, seals, "O" rings, and other rubber parts) that were purchased more than six months prior to the return date.
 - c. Any line item with an extended dealer net price of less than \$5.00.
 - d. Special order items.
 - e. Electrical components.
 - f. Paint, chemicals, and lubricants.
 - g. Decals and paper products.
 - h. Items purchased in kits.
7. The sender will be notified of any material received that is not acceptable.
8. Such material will be held for 5 working days from notification, pending instructions. If a reply is not received within 5 days, the material will be returned to the sender at his expense.
9. Credit on returned parts will be issued at dealer net price at time of the original purchase, less a 15% restocking charge.
10. In cases where an item is accepted for which the original purchase document can not be determined, the price will be based on the list price that was effective twelve months prior to the RMA date.
11. Credit issued will be applied to future purchases only.

PRICING AND REBATES

Prices are subject to change without prior notice. Price changes are effective on a specific date and all orders received on or after that date will be billed at the revised price. Rebates for price declines and added charges for price increases will not be made for stock on hand at the time of any price change.

Multiquip reserves the right to quote and sell direct to Government agencies, and to Original Equipment Manufacturer accounts who use our products as integral parts of their own products.

SPECIAL EXPEDITING SERVICE

A \$20.00 to \$50.00 surcharge will be added to the invoice for special handling including bus shipments, insured parcel post or in cases where Multiquip must personally deliver the parts to the carrier.

LIMITATIONS OF SELLER'S LIABILITY

Multiquip shall not be liable here under for damages in excess of the purchase price of the item with respect to which damages are claimed, and in no event shall Multiquip be liable for loss of profit or good will or for any other special, consequential or incidental damages.

LIMITATION OF WARRANTIES

No warranties, express or implied, are made in connection with the sale of parts or trade accessories nor as to any engine not manufactured by Multiquip. Such warranties made in connection with the sale of new, complete units are made exclusively by a statement of warranty packaged with such units, and Multiquip neither assumes nor authorizes any person to assume for it any other obligation or liability whatever in connection with the sale of its products. A part from such written statement of warranty, there are no warranties, express, implied or statutory, which extend beyond the description of the products on the face hereof.

PARTS AND OPERATION MANUAL

HERE'S HOW TO GET HELP

*PLEASE HAVE THE MODEL AND SERIAL NUMBER
ON-HAND WHEN CALLING*

PARTS DEPARTMENT

800-427-1244 or 310-537-3700

FAX: 800-672-7877 or 310-637-3284

SERVICE DEPARTMENT/TECHNICAL ASSISTANCE

800-478-1244 or 310-537-3700

FAX: 310- 537-4259

WARRANTY DEPARTMENT

888-661-4279, or 310-661-4279

FAX: 310- 537-1173

MAIN

800-421-1244 or 310-537-3700

FAX: 310-537-3927



MULTIQUIP INC.

POST OFFICE BOX 6254

CARSON, CA 90749

310-537-3700 • 800-421-1244

FAX: 310-537-3927

E-MAIL: mq@multiquip.com

WWW: multiquip.com

Atlanta • Boise • Dallas • Houston • Newark
Quebec, Canada • Manchester, UK • Rio De Janeiro, BR • Guadalajara, MX