

PARTS AND OPERATION MANUAL



Model KD1800/KD6 A.C. GENERATOR USED WITH MLT SERIES MODULAR LIGHT TOWERS

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Revision #1 (06/16/05)



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WARNING



CALIFORNIA — Proposition 65 Warning

Diesel engine exhaust and some of its constituents are known to the State of California to cause cancer, birth defects and other reproductive harm.

HERE'S HOW TO GET HELP

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

PARTS DEPARTMENT

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

SERVICE DEPARTMENT/TECHNICAL ASSISTANCE

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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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Multiquip KD1800/KD6 AC Generator

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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
- UPS 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%
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KD1800/KD6 — 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 operation of the MQ Whiteman Model KD1800/KD6 6KW Generator. Please refer to the engine manufacturers instructions for data relative to its safe operation.

Before using this Generator, 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 KD-1800/KD-6 Generator operation 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



Diesel fuel 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 diesel 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.

KD1800/KD6 — SAFETY MESSAGE ALERT SYMBOLS



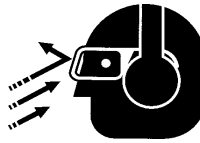
Accidental Starting



OFF **ALWAYS** place the ignition switch in the OFF position, remove key when the equipment is not in use. Store key in a safe place.



Sight and Hearing hazard



ALWAYS wear approved eye and hearing 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.



Equipment Damage Messages

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

NOTE

This generator, other property, or the surrounding environment could be damaged if you **DO NOT** follow instructions.

KD1800/KD6 — RULES FOR SAFE OPERATION

CAUTION:



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 KD1800/KD6 6 KW AC Generator:

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.



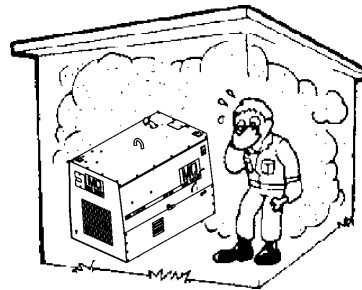
- **NEVER** use accessories or attachments, which are not recommended by Multiquip for this equipment. Damage to the equipment and/or injury to user may result.
- Manufacture does not assume responsibility for any accident due to equipment modifications.
- Whenever necessary, replace nameplate, operation and safety decals when they become difficult 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 generator.



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

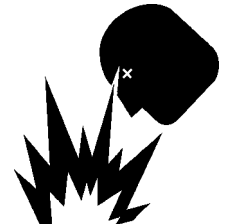
- The engine of this generator requires an adequate free flow of cooling air. **NEVER** operate the generator in any enclosed or narrow area where free flow of the air is restricted.



If the air flow is restricted it will cause serious damage to the generator engine and may cause injury to people. Remember the generator'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.



- **NEVER** smoke around or near the machine. Fire or explosion could result from fuel vapors, or if fuel is spilled on a hot engine.



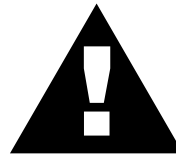
- **NEVER** operate the generator in an explosive atmosphere or near combustible materials. An explosion or fire could result causing severe **bodily harm or even death**.

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

KD1800/KD6 — RULES FOR SAFE OPERATION

- **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.
- This generator is a source of providing **LETHAL** high voltages. **NEVER** permit unqualified personnel-especially children to operate the generator.
- **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 flames or sparks, or if fuel is spilled on a hot engine.
- This generator is equipped with a **ground terminal** for your protection. **ALWAYS** complete the grounding path from the generator to an external grounding source.
- **NEVER** operate this generator, or handle any electrical equipment while standing in **water, while bare foot, while hands are wet, or in the rain**. *Dangerous electrical shock could occur causing severe bodily harm or even death.*
- Keep electrical cords in good condition. Worn, bare or frayed wiring can cause electrical shock, thus causing *bodily harm or even death*.
- This generator requires an adequate free flow of cooling air. **NEVER** operate the generator 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 generator and may cause injury to people.
- **NEVER** touch the hot exhaust manifold, muffler or cylinder. Allow these parts to cool before servicing generator.
- Provide adequate ventilation when operating the generator. **DO NOT** operate the generator in any enclosed or narrow space. The gasoline engine that provides power to the generator gives off **DEADLY** monoxide gas.
- **NEVER** operate the generator in an explosive atmosphere or near combustible materials. An explosion or fire could result causing severe **bodily harm or even death**.
- **ALWAYS** make sure that the generator is secure on level ground so that it cannot slide or shift around, endangering workers. Also keep the immediate area free of bystanders.
- **High Temperatures** – Allow the machine and engine to cool before adding fuel or performing service and maintenance functions. Contact with *hot* components can cause serious burns.

CAUTION:



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 plastic containers to dispose of hazardous waste.
- **DO NOT** pour waste, oil or fuel directly onto the ground, down a drain or into any water source.

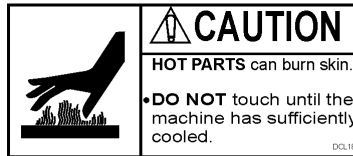
KD1800/KD6 — OPERATION AND SAFETY DECALS

Machine Safety Decals

The KD1800/KD6 generator is equipped with a number of safety decals. These decals are provided for operator safety and maintenance information. The illustration below shows these decals as they appear on the machine. Should any of these decals become unreadable, replacements can be obtained from your dealer. For a complete decal sheet order P/N 29345.



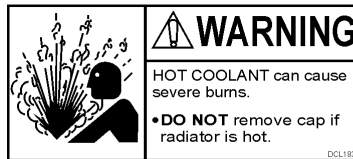
P/N DCL180



P/N DCL181



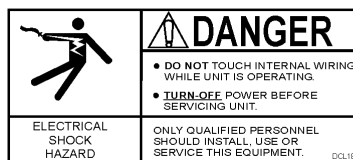
P/N DCL182



P/N DCL183



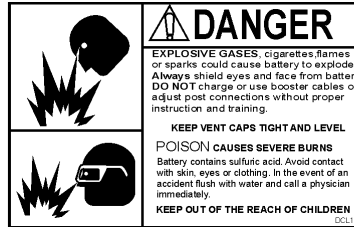
P/N DCL184



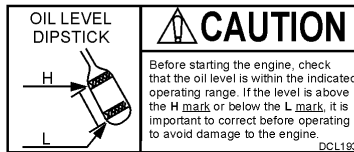
P/N DCL187



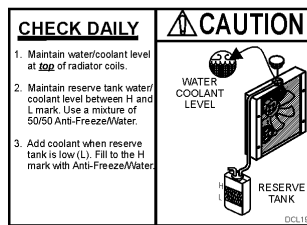
P/N DCL188



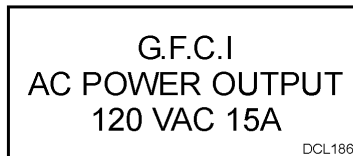
P/N DCL191



P/N DCL193



P/N DCL194



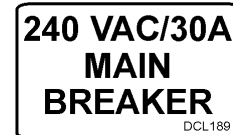
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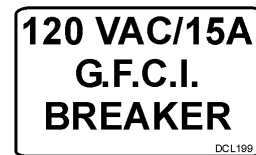
P/N DCL117



P/N DCL198



P/N DCL189



P/N DCL199



P/N DCL192



P/N DCL185



P/N DCL190

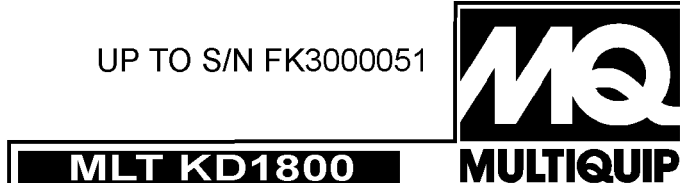


P/N DCL197

KD1800/KD6 — OPERATION AND SAFETY DECALS



P/N 29359 (LEFT)



P/N 29358 (RIGHT)



P/N 29359 (LEFT)



P/N 29359 (RIGHT)

**OPERATING PROCEDURE
MLT KD-1800 GENERATOR**

STARTING

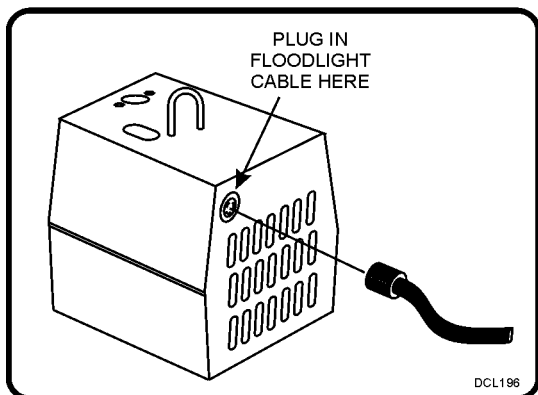
1. Check the oil level.
2. Check the water level.
3. Check the fuel level.
4. Turn the ignition switch to the **pre-heat** position.
5. Verify that the pre-heat indicator lamp is **ON**.
6. When the pre-heat lamp goes **OFF** turn the ignition key to the **start** position.
7. Check the engine for abnormal vibrations, noise and oil leaks.
8. Turn main breaker on control panel to the **ON** position.
9. **Close** both cabinet doors.

SHUT-DOWN

1. Ensure lights are turned **OFF**.
2. Turn main breaker on control panel to the **OFF** position.
3. Turn the ignition key to the **stop** position, and remove the key.
4. Store the key in a safe place.

DCL195

P/N DCL195



P/N DCL196



P/N 29360

KD1800/KD6 — GENERATOR SPECIFICATIONS

Model	Marathon 332CSA5203
Phase	Single Phase
Maximum Output	6,000 Watts
Continious Output	6,000 Watts
Rated Voltage	120/240 Volts
Amps at 120/240	50/25 Amps
Frequency	60 Hz.
Speed	1,800 rpm
Dry Weight ¹	110 lbs. (50 Kg.) Generator Only
Dry Weight ²	702 lbs (305 Kg.) Complete

1. This weight is for the generator *only*. It **DOES NOT** include the cabinet.
2. This weight is for a complete generator, which includes the engine, radiator and cabinet enclosure.

KD1800/KD6 — GENERATOR SPECIFICATIONS

Model	KUBOTA D905-EBG-2E
Rated Output (Gross Intermittent) Power	13.7 HP @1,800 rpm's 23.0 HP @3,000 rpm's
Net Continuous Power	10.2 HP @1,800 rpm's 17.0 HP @3,000 rpm's
Displacement	54.80 cu. in (898 cm ²)
Combustion Chamber	Spherical Type (9E-TVCS)
Maximum Bare Idle Speed	3,800 rpm's
Number of Cylinders	3
Cooling System	Water-Cooled
Fuel Tank Capacity*	30 gal. (113 liters)
Run Time, 3/4 Load	56 hours
Fuel Type	Diesel No.2-D (ATSM D975)
Coolant Capacity Radiator	0.82 gal (3.1 liters)
Coolant Capacity Reserve Tank	0.158 gal (0.6 liters)
Lube Oil capacity	1.34 gal (5.1 liters)
Lubricant (API Classification)	Above CD Grade
Battery	12V-40Ah
Dimensions (L x W x H)	19.60 x 15.59 x 23.96 in (497.8 x 396 x 608.7 mm)
Weight	205 lbs. (93 kg.)

*Fuel tank is part of Modular Light Tower (MLT) trailer.

The maximum output of the engine listed above is applicable to supplying electrical power for continuous service at ambient conditions in accordance with SAE Test cord J607. The above ambient conditions are at standard sea level, with a barometric reading of 29.92 inches and a temperature of 60 degrees Fahrenheit.

Generally, the engine output power will decrease 3 1/2% for each 1000 feet of altitude above sea level, and 1% for each 10° F Fahrenheit above the standard temperature of 60° F

KD1800/KD6 — GENERAL INFORMATION

KD1800/KD6 FAMILIARIZATION

Generator

Housed within the KD1800/KD6 generator package is a Marathon Model 332, 6,000 watt (6-KW) generator. This generator can provide up to 50 amps of current. In addition two voltage output receptacles have been provided on the generator's **control box**. One receptacle has an output of 120/250 VAC and the other is a 120 VAC, GFCI protected receptacle.

The Marathon Model 332 generator should only be operated at a frequency of 60 hertz. The speed should be 1,850 rpm's (no load) and 1,800 rpm's (full load). A single capacitor is used to regulate the voltage to within 5% of the rated load.

The engine-generator set must be installed in a protected environment, with a minimal exposure to fumes, moisture, dust and dirt.

NOTE

When operating the generator, remember the outside air temperature must not exceed 40°C (104°F).

Remember the following when using the generator:

- **DO NOT** obstruct the generator's intake and outlet passages.
- **ALWAYS** provide sufficient air circulation around the generator to remove engine heat and to provide ample generator cooling.
- **HOT AIR** from the radiator must not enter into the generator.
- **Use extreme caution when handling capacitors.** A potential shock condition exist even when the engine has been shut-off. See maintenance section of this manual for the proper handling of capacitors.
- For operation at **high altitudes**, ratings must be derated 2% for each 1000 feet above sea level.
- Frame temperatures above 60° C (104° F) are too high, indicating a temperature rise in the copper windings of 105°C (122° F) or more.
- After running the generator for 30 minutes at full load check the temperature rise. If the temperature is excessive, examine the generator for the following:
 - A. Obstructed air-flow
 - B. Hot air feeding into the inlet of the generator.
 - C. By-passed air (air not pulled through generator)

Control Panel

The **generator's control box** is provided with the following components:

- One Duplex GFCI 120 VAC Receptacle, 15 Amps
- One 120/250 VAC receptacle, 30 Amps
- Main Circuit Breaker 240 V @30 Amps
- GFCI Circuit Breaker 120 V @15 Amps
- Pre-Heat Lamp Indicator
- Ignition Switch

Engine

The KD1800/KD6 is powered by vertical, water-cooled, 4-cycle **diesel** engine. This engine is designed to meet every performance requirement for the generator.

ALWAYS perform a maintenance check list before starting the engine.



Reference Tables 1 and 2 for generator and engine specifications.

Refer to the engine maintenance section for more information about the engine.

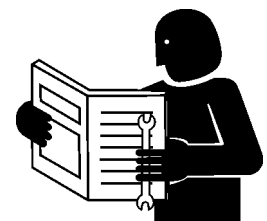


Figure 2 (page 16) shows the basic components and indicators for the KD1800/KD6 generator.

NOTE

In keeping with Multiquip's policy of constantly improving its products, the specifications quoted herein are subject to change without prior notice.

KD1800/KD6 — DIMENSIONS

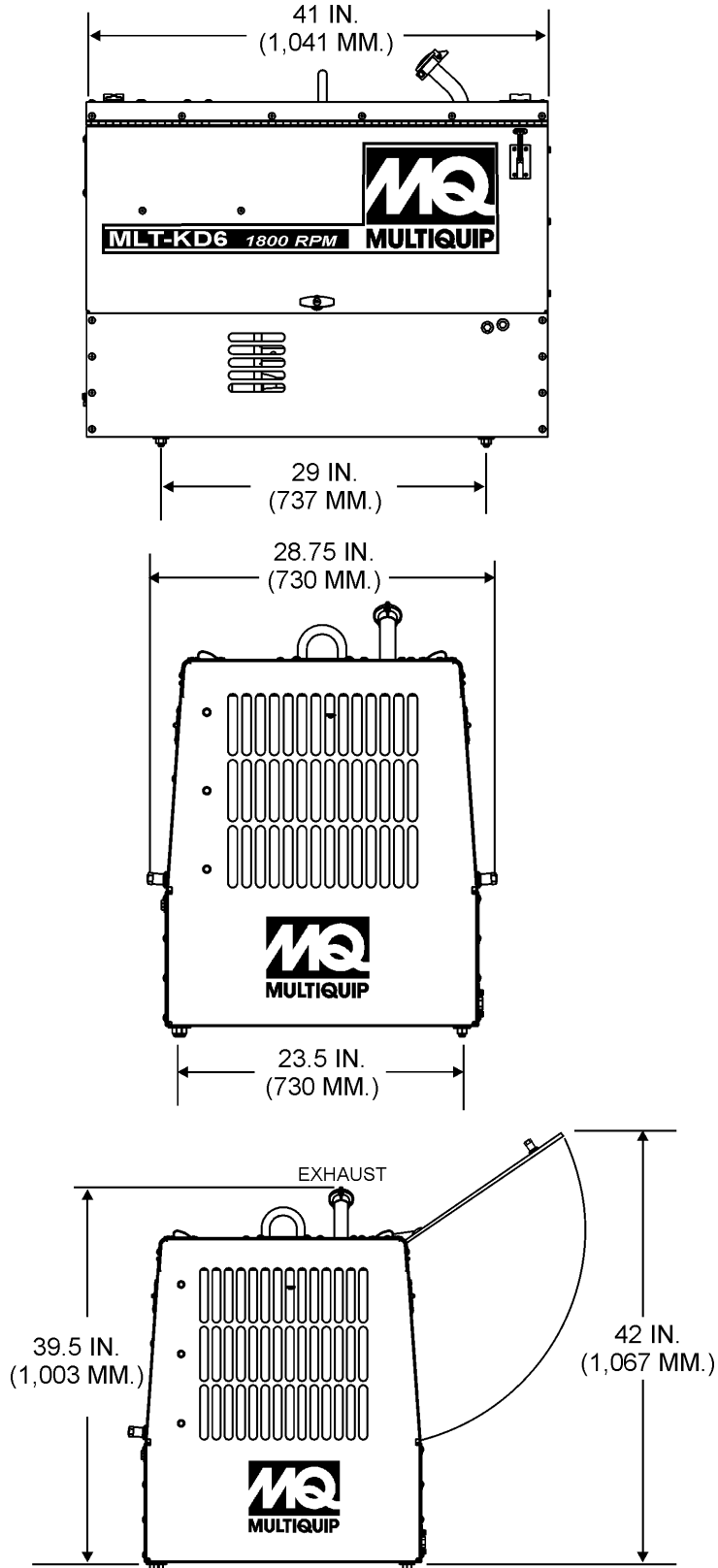


Figure 1. KD1800/KD6 Dimensions

KD1800/KD6 — CONTROLS AND INDICATORS

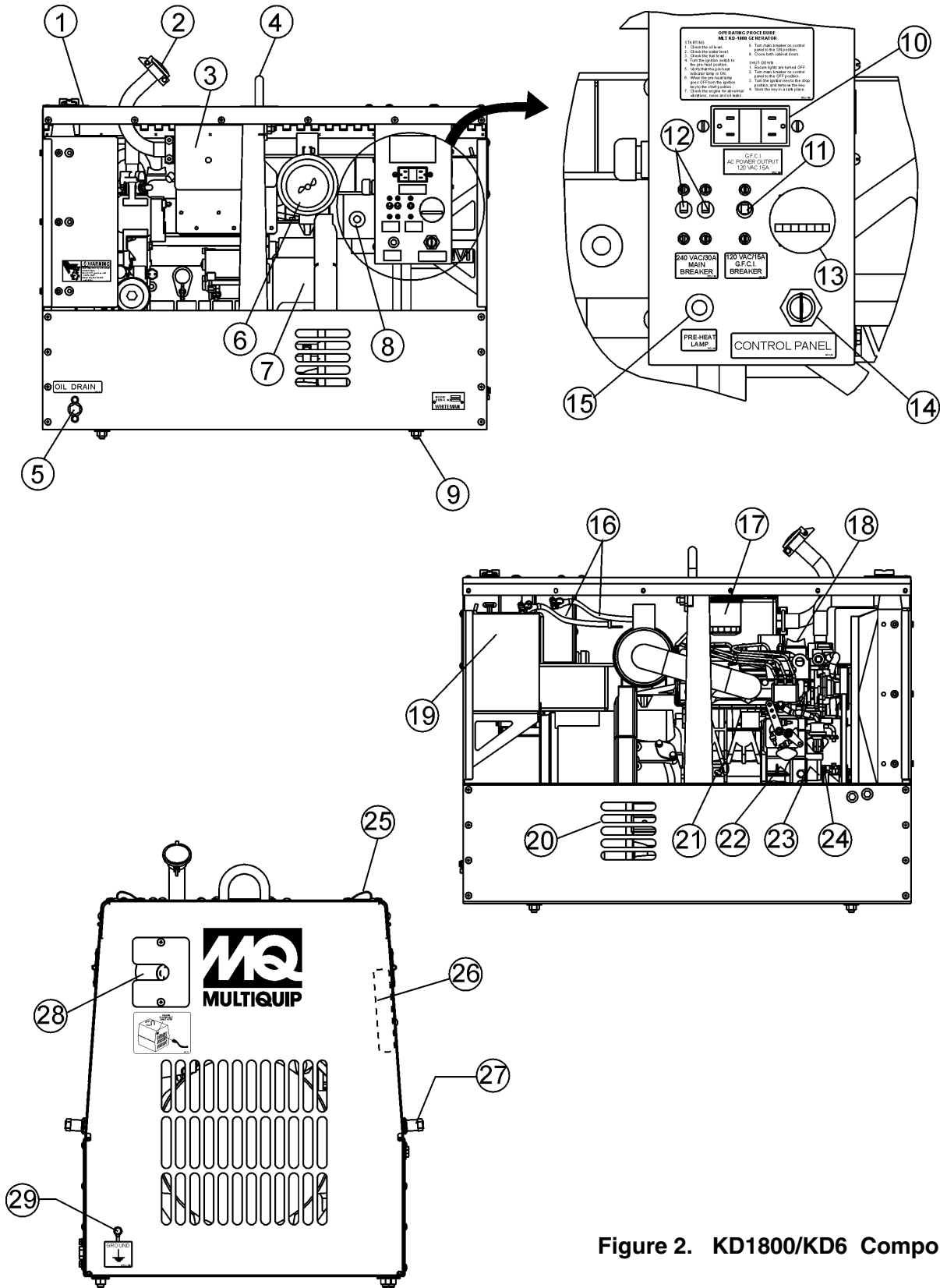


Figure 2. KD1800/KD6 Components

KD1800/KD6 — CONTROLS AND INDICATORS

Figure 2 shows the location of the controls and indicators of the **KD1800/KD6** generator. The functions of each control or indicator is described below:

1. **Radiator Filler Port** – Remove this plate to add coolant (anti-freeze) to the radiator. **NEVER** add coolant to the radiator when the radiator is **HOT!**. Allow the radiator to cool before adding coolant. Use a water coolant mixture as recommended in the maintenance section of this manual.
2. **Air Outlet Exhaust Pipe** – Allows engine exhaust to exit the generator into the open air. **NEVER** block this opening.
3. **Muffler**– Used to reduce noise and emissions.
4. **Lifting Hook** – Use this hook to lift the generator. **ALWAYS** use a lifting device of adequate lifting capacity to lift the generator.
5. **Oil Drain Plug** – Remove this plug to drain oil from the engine crankcase. Fill with recommended type oil as specified in the maintenance section of this manual.
6. **Engine Air Cleaner** – Prevents dirt and other debris from entering the fuel system. Lift locking latch on air filter cannister to gain access to filter element.
7. **Marathon Generator** – Provides single-phase AC power for external equipment. See specification table (Table 1) within this manual.
8. **Generator Output Box** – Contains the excitation electronics for the generator.
9. **Generator Mounting Hardware** – Use this hardware to install or remove the generator from the trailer frame.
10. **Receptacle G.F.C.I.** – Provides 120 volts output at 15 amps.
11. **Circuit Protector Circuit Breaker** – This single pole circuit breaker provides circuit protection (120V @ 15 amps) for the G.F.C.I receptacle.
12. **Main Circuit Breaker** – This 2-pole circuit breaker provides circuit protection (120/240V @ 30 amps) for the load side of the generator.
13. **Hour Meter** – Indicates number of hours machine has been in use or hours engine was run.
14. **Ignition Switch** – With key inserted turn clockwise to start engine.
15. **Pre-Heat Indicator Light** – Lights blue during engine start-up. Indicates that engine glow plugs are being pre-heated. Light will go off after approximately 10 seconds.
16. **Battery Terminals** – Connect these terminals to the battery. Always pay close attention to the polarity of the terminals when connecting to the battery, **RED** (positive), and **BLACK** (negative).
17. **Fuel Filter** – Prevents dirt and foreign debris from entering the fuel system. Replace this filter as recommended in the maintenance section of this manual.
18. **Engine Oil Filler Port** – Remove this cap to add engine oil. Use only recommended type oil. See table 3.
19. **Battery** – Provides +12 VDC power for the generator. When replacing battery (12V 40 AH) use only recommended type battery.
20. **Air Inlet vent** – Allows outside air to enter the generator. **NEVER** block this opening.
21. **Engine Oil Dipstick** – Remove this dipstick to determine the level of the oil in the engine crankcase. For safe engine operation always maintain the oil between the two notches on the dipstick. Add recommended type engine oil as specified in Table 4.
22. **Oil Filter** – Provides oil filtering for the engine. Replace with only recommended type oil filter.
23. **Primer Bulb** – Removes air from the fuel system in the event the engine has run out of gas.
24. **Overflow Bottle** – Supplies coolant to the radiator when radiator coolant level is low. Fill to indicated level as shown on bottle
25. **Cabinet Latch** – Use this latch to keep cabinet door open.
26. **Documentation Box** – Operation, parts and service manuals are kept in this box.
27. **Cabinet Handle** – Turn handle clockwise to release locking mechanism, then pull cabinet door upward to gain access to engine compartment.
28. **Output Receptacle** – Remove cover plate to gain access to receptacle. To receive power from the generator, plug external power cable into this receptacle.
29. **Frame Ground Lug** – Connect a ground strap between this lug and a ground rod. Make sure that the ground rod is inserted deep into the ground to provide a good earth ground. Consult with local Electrical and Safety Codes for proper connection.

Outdoor Installation

Install the generator in a location where it will not be exposed to rain or sunshine. Make sure that the welder/generator is on secure level ground so that it cannot slide or shift around. Also install the generator in a manner so that the exhaust will not be discharged in the direction of nearby homes.

The installation site must be relatively free from moisture and dust. All electrical equipment should be protected from excessive moisture. Failure to do will result in deterioration of the insulation and will result in short circuits and grounding.

Foreign materials such as dust, sand, lint and abrasive materials have a tendency to cause excessive wear, not only to the engine parts, but also to the alternator parts.

CAUTION :



Pay close attention to ventilation when operating the generator inside tunnels and caves. The engine exhaust contains noxious elements.

Indoor Installation

Exhaust gases from diesel engines are extremely poisonous. Whenever an engine is installed indoors the exhaust fumes must be vented to the outside. The engine should be installed at least two feet from any outside wall. Using an exhaust pipe which is too long or too small can cause excessive back pressure which will cause the engine to heat excessively and possibly burn the valves.

Eliminate the danger of deadly carbon monoxide gas. Remember that exhaust fumes from any gasoline engine are very poisonous if discharged in a closed room, but harmless if allowed to mix with the outside air. If the generator is installed indoors, you must make provisions for venting the engine exhaust to the outside of the building.

KD1800/KD6 — PRE-SETUP (GENERATOR)

General Inspection Prior to Operation

The KD1800/KD6 utilizes a generator that has been thoroughly inspected and accepted prior to shipment from the factory. However, be sure to check for damaged parts or components, or loose nuts and bolts, which could have occurred in transit.

Generator Grounding

To guard against electrical shock and possible damage to the equipment, it is important to provide a good **EARTH** ground.

Article 250 (Grounding) of the National Electrical Code (NEC) provides guide lines for proper grounding and specifies that the cable ground shall be connected to the grounding system of the building as close to the point of cable entry as practical. If a building is not accessible, then the use of a ground rod is sufficient.

NEC articles 250-91a and 250-95 sets the following grounding requirements:

1. Use one of the following wire types to connect the generator to earth ground.
 - a. Copper - 10 AWG (5.3 mm²) or larger.
 - b. Aluminum - 8 AWG (8.4 mm²) or larger.
2. The ground terminal on the generator should always be used to connect the generator to a suitable ground. The ground ring on the generator (Figure 3) should be able to accommodate #8 size copper or aluminum wire.
3. Crimp the ground wire to the ground lug on the generator. Connect the other end of the ground wire to a suitable building ground or ground rod.
4. NEC article 250-83c specifies that the earth ground rod should be buried a minimum of 8 ft. into the ground.

NOTE

Check local city codes for proper grounding requirements.

NOTE

When connecting the generator to any buildings electrical system **ALWAYS** consult with a licensed electrician.

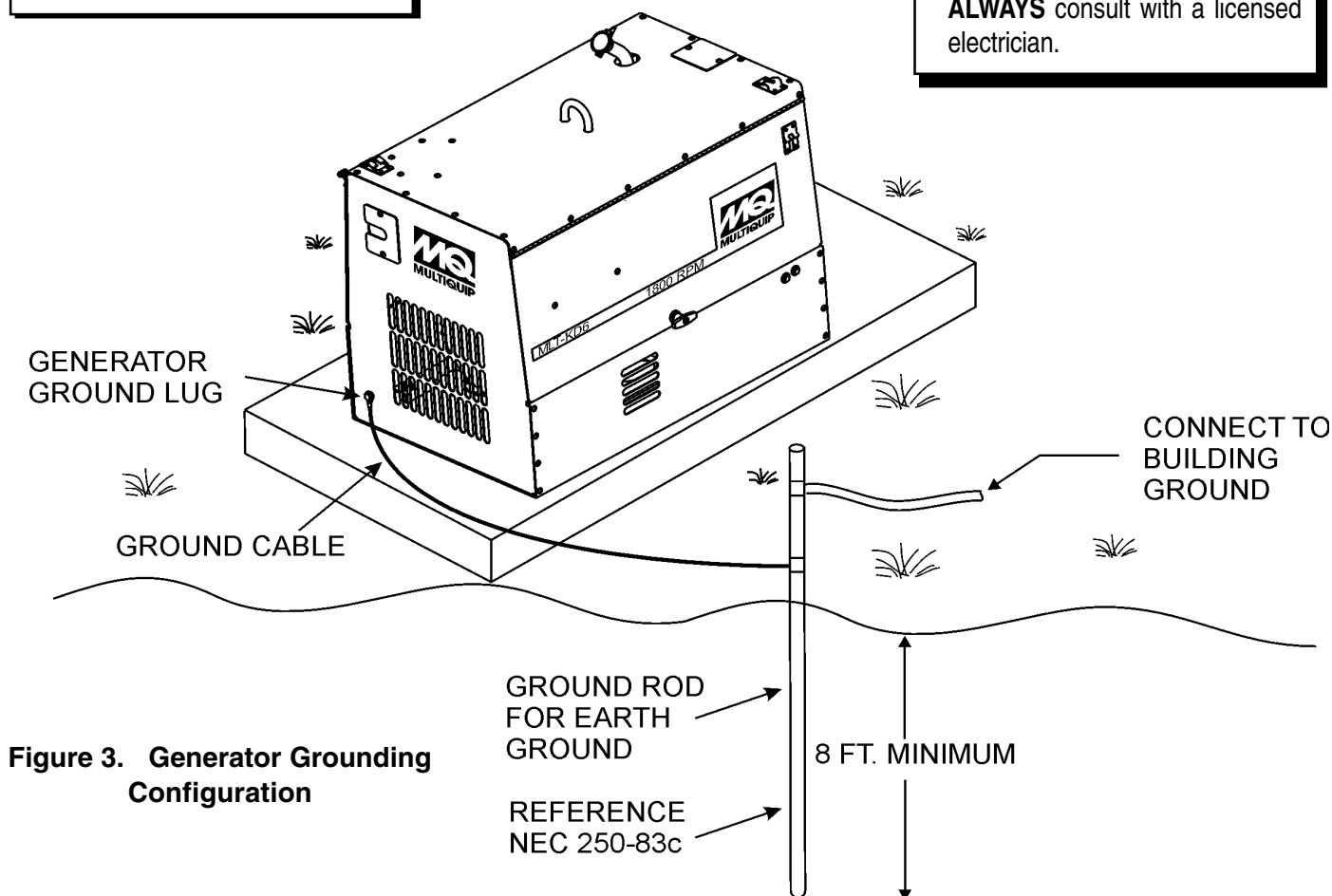


Figure 3. Generator Grounding Configuration

KD1800/KD6 — PRE-SETUP (GENERATOR)

Circuit Breakers

To protect the generator from an overload, a 2-pole, 30 amp, **main** circuit breaker is provided. In addition a single pole, 15 amp breaker is provided for the G.F.C.I. receptacle. Make sure to switch both circuit breakers to the "OFF" position prior to starting the engine.

Extension Cable

When electric power is to be provided to various tools or loads at some distance from the generator, extension cords are normally used. Cables should be sized to allow for distance in length and amperage so that the voltage drop between the generator and point of use (load) is held to a minimum. Use the cable selection chart (Table 3) as a guide for selecting proper cable size.

Current in Amperes	Load In Watts		Maximum Allowable Cable Length			
	At 120 Volts	At 240 Volts	#10 Wire	#12 Wire	#14 Wire	#16 Wire
2.5	300	600	1000 ft.	600 ft.	375 ft.	250 ft.
5	600	1200	500 ft.	300 ft.	200 ft.	125 ft.
7.5	900	1800	350 ft.	200 ft.	125 ft.	100 ft.
10	1200	2400	250 ft.	150 ft.	100 ft.	
15	1800	3600	150 ft.	100 ft.	65 ft.	
20	2400	4800	125 ft.	75 ft.	50 ft.	
30	3600	7200	75 ft.	50 ft.	35 ft.	
CAUTION: Equipment damage can result from low voltage.						

Lubrication Oil (Engine)

Fill the engine crankcase with lubricating oil through the filler hole, but do not overfill. Make sure the generator is level. With the dipstick inserted all the way into its holder. Verify that the oil level is maintained between the two notches (Figure 4) on the dipstick. See Table 4 for proper selection of engine oil.

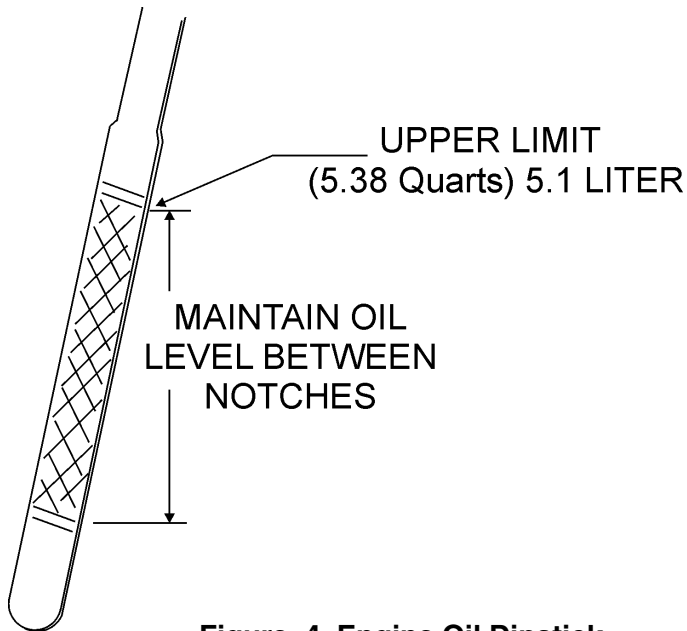


Figure 4. Engine Oil Dipstick

Fuel

Fill the fuel tank with No. 2 **diesel fuel**. **DO NOT** fill the tank beyond capacity. Use a strainer when pouring the fuel into the tank. This will prevent dirt and debris from entering the fuel system.

Pay attention to the fuel tank capacity when replenishing fuel. Refer to the fuel tank capacity listed on page 13, Engine Specification Table 2.

The fuel tank cap must be closed tightly after filling. Handle fuel in a safety container. If the container does not have a spout, use a funnel.

CAUTION :



NEVER fill the fuel tank while the engine is running or in the dark. **Diesel fuel** spillage on a hot engine can cause a fire or explosion. If diesel fuel spillage occurs, wipe up the spilled gasoline completely to prevent fire hazards.

Coolant

Check coolant level as described in the maintenance section of this manual.

Use distilled water mixed with coolant. If hard water or water with many impurities is used, the inside of the engine and radiator may become coated with deposits and cooling efficiency will be reduced.

Temperature Range	Type Oil
Above 23° C (77° F)	SAE30 or SAE10W-30 SAE10W-40
0° to 25° C (32 to 77° F)	SAE20 or SAE10W-30 SAE10W-40
Below 0° C (32° F)	SAE10W or SAE10W-30 SAE10W-40

CAUTION :



When adding coolant or anti-freeze to the radiator, **DO NOT** remove the radiator cap until the unit has completely cooled.

Radiator

Day-to-day addition of coolant or anti-freeze is done via the reserve tank. See maintenance section (radiator) of this manual for filling requirements.

Cleaning the Radiator

The radiator may overheat if the fins become overloaded with dust or debris. Periodically clean the radiator fins with compressed air.

Fan Belt Tension

A slack fan belt may contribute to overheating, or to insufficient charging of the battery. Inspect and adjust it in accordance with the **KUBOTA** engine manual.

The fan belt tension is proper if the fan belt (Figure 5) bends 7 to 9 mm (0.28- to 0.35) when depressed with the thumb as shown in Figure 8 below.

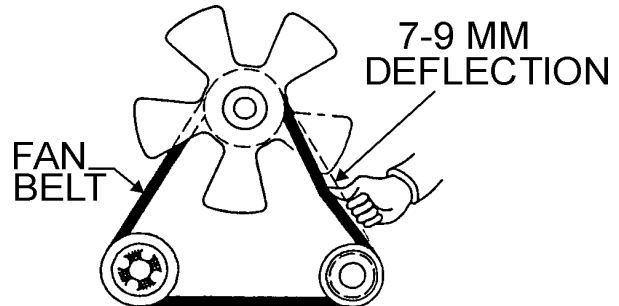


Figure 5. Fan Belt Tension

CAUTION :



When using a combination of dual receptacles, total load should not exceed the rated capacity of the generator set.

Power Outlets

The generator has the following single-phase 60 Hz, 120/240 volt receptacles.

- Single Phase
 - One Duplex NEMA (GFCI) 5-15R (120V, 15 Amp)
 - One Twist Lock NEMA L14-30R (120/240V, 30 Amp)

Main Circuit Breaker (2-Pole)

This 2-pole, 30 amp **main breaker** protects the 120/240 output receptacle from short circuiting or overloading.

GFCI Circuit Breaker (Single-Pole)

This single-pole, 15 amp breaker protects the GFCI receptacle from short circuiting or overloading.

GFCI Receptacle

Before connecting a load to the generator's GFCI receptacle, **push** the "Test Button" on the front of receptacle before connecting the load, to confirm that the receptacle is functioning correctly.

Pre-Heat Lamp

Lights blue during engine start-up. Indicates that engine glow plugs are being pre-heated. Light will go off after approximately 10 seconds.

KD1800/KD6 — LOAD APPLICATION

Single Phase Load

Always be sure to check the nameplate on the generator and equipment to insure the wattage, amperage and frequency requirements are satisfactorily supplied by the generator for operating the equipment.

Generally, the wattage listed on the nameplate of the equipment is its rated output. Equipment may require 130—150% more wattage than the rating on the nameplate, as the wattage is influenced by the efficiency, power factor and starting system of the equipment.

NOTE

If wattage is not given on the equipment's name plate, approximate wattage may be determined by multiplying nameplate voltage by the nameplate amperage.

$$\text{WATTS} = \text{VOLTAGE} \times \text{AMPERAGE}$$

The power factor of this generator is 1.0. See Table 5 below when connecting loads.

Type Of Load	Power Factor
Single-phase induction motors	0.4 - 0.75
Electric heaters, incandescent lamps	1.0
Fluorescent lamps, mercury lamps	0.4 - 0.9
Electronic devices, communication equipment	1.0

- When connecting ordinary power tools, a capacity of up to the generating set's rated output (kW) multiplied by 0.8 can be used.
- When connecting a resistance load such as an incandescent lamp or electric heater, a capacity of up to the generating set's rated output (kW) can be used.
- When connecting a fluorescent or mercury lamp, a capacity of up to the generating set's rated output (kW) multiplied by 0.6 can be used.
- When connecting an electric drill or other power tools, pay close attention to the required starting current capacity.

CAUTION:



Motors and motor-driven equipment draw much greater current for starting than during operation.

An inadequate size connecting cable which cannot carry the required load can cause a voltage drop which can burn out the appliance or tool and overheat the cable.

CAUTION:



Before connecting this generator to any building's electrical system, a licensed electrician must install an isolation (transfer) switch. Serious injury or death may result without this transfer switch.

WARNING:



- The engine's exhaust contains harmful emissions. **ALWAYS** ventilate the exhaust when operating inside tunnels, excavations or buildings. Direct exhaust away from nearby personnel.

Before Starting

1. Be sure to disconnect the **electrical load** and switch the main circuit breaker to the "**OFF**" position prior to starting the engine. Also switch the GFCI circuit breaker to the "**OFF**" position.
2. NEVER start the engine with the main or GFCI circuit breakers in the "**ON**" position.
3. Check the lubricating oil level prior to starting the engine. Make sure the generator is level. The oil level must be maintained between two notches on the dipstick.
4. When there is not enough lubricating oil, fill the crankcase with high grade motor oil. Use a high quality detergent oil classified CC or higher (See Table 4 on page 21).
5. Check the coolant level in the radiator and subtank. Replenish with anti-freeze as necessary. **ALWAYS** maintain the coolant level between the **FULL** and **LOW** markings on the coolant container. Be sure that the radiator cap is fastened securely.

CAUTION:



- Check the fuel source for low fuel level. When fuel is low, fill the fuel tank with clean fresh automotive No. 2 **diesel fuel**.
- If diesel fuel spillage occurs, completely wipe up the spilled diesel fuel.

Engine Starting Procedure (Diesel)

1. **ALWAYS** operate the generator with the doors in the **closed** position. Operation with the doors open may cause insufficient cooling to the unit, and damage may result.
2. Insert the key into the ignition switch and turn it counter-clockwise to the "**PRE-HEAT**" position.
3. When the "**PRE-HEAT**" lamp goes off, turn the key to clockwise to the "**START**" position. As soon as the engine starts, release the key.

NOTE

During winter or when the surrounding air temperature is cold, in situations where a cold start is required, turn the key to the "**HEAT**" position. Remember you must wait until the preheat light goes off before turning the key to the start position.

4. If the engine does not start within 10 seconds after the key is turned to the "**START**" position, wait for about 30 seconds and repeat the procedure as described in steps 1 through 4.

CAUTION:



- **NEVER** turn the key to the "**START**" position while the engine is running.

5. Let the engine idle for five minutes with no load
6. If any abnormal vibrations, noises or oil leakages occur, turn the generator **OFF** immediately and rectify the problem.
7. If the generator is running smoothly with no problems connect the load (output power cable) to the generator.

Engine Shut-down Procedure

1. Remove the load from the generator, then place both the main and GFCI circuit breakers to the **OFF** position.
2. Listen for the engine speed to drop. Run at low speed for 3-5 minutes.
3. Stop the engine by turning the key to the "**CENTER**" position and remove the key. Store key in a safe place.

General Inspection

At least daily or prior to each use, the generator should be cleaned and inspected for deficiencies. Check for loose, missing or damaged nuts, bolts or other fasteners. Also check for fuel or oil leaks.

Engine Side:

For a more detail engine maintenance schedule refer to the **KUBOTA Engine Shop and Operator's Manual**.

Air Cleaner

Every 50 hours: The air cleaner employed on the KUBOTA engine Model D905EBG is a dry type, **NEVER** apply oil to it.

If the generator will be operating in very dusty and dry grass conditions, a clogged air cleaner will result in high fuel consumption, loss of power and excessive carbon buildup in the combustion chamber. Service air cleaner **daily**.

1. Open the **evacuator valve** (Figure 6) once a week under ordinary conditions or daily in dusty conditions. This will eliminate large particles of dust and dirt within the air cleaner.

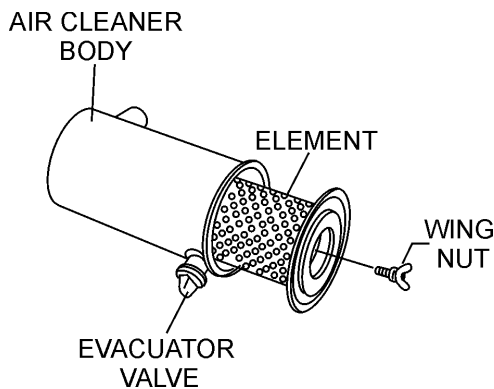
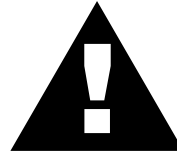


Figure 6. Air Cleaner

2. Wipe the inside of the **air cleaner** with a damp cloth and remove all dust and debris that may have accumulated inside air cleaner body.
3. Avoid touching the **element** except when cleaning.
4. Use compressed air to clean air filter element. Blow compressed air from the inside while turning the element. **ALWAYS** keep the pressure of the compressed air below 99 psi.
5. If **carbon** or **oil** adheres to the element, soak the element in detergent for 15 minutes, then wash it several times in water, rinse with clean water and let dry.

6. After the element is **fully** dried, inspect the inside of the element with a light, and check for damage (refer to the instructions on the label attached to the element).
7. Replace the element once a year or every six cleanings.

CAUTION:



- Make sure the wing nut for the air cleaner is tight enough. If is loose, dust and dirt may be sucked in, wearing down the cylinder liner and piston ring, and thereby resulting in poor power output.
- **DO NOT** over service the air cleaner element. Over servicing may cause dirt to enter the engine causing premature wear. Use the dust indicator as a guide on when to service the element.

Oil Change

Every 200 hours: Change the engine oil after the first 50 hours of operation and every 200 hours thereafter. **ALWAYS** check the crankcase oil level prior to each use, or when the fuel tank is filled. Insufficient oil may cause severe damage to the engine. Make sure the generator is level when checking the oil level.

1. Remove the oil dipstick from its holder, wipe it clean and reinstall it.
2. Remove the oil dipstick again from its holder, and check the oil level.
3. The oil level must be between the two notches on the dipstick as shown in Figure 7.

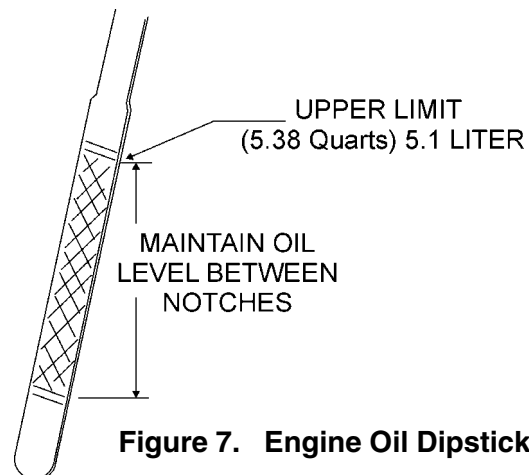


Figure 7. Engine Oil Dipstick

- If the engine oil level is too low, remove the engine oil filler cap Figure 9, and fill to the correct operating level.

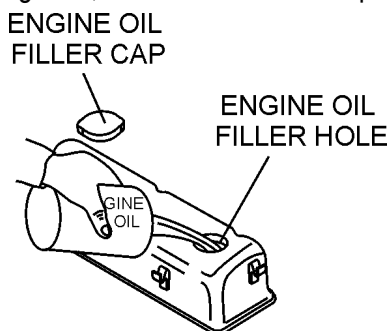


Figure 9. Engine Oil Filler Hole

CAUTION:



- Engine oil should be MIL-L2104C or have properties of API classification CD grades or higher.

- When changing the engine oil, use a oil with a viscosity appropriate for the atmospheric temperature at the site. Use SAE-30 oil in the summer, SAE-20 in the winter, or all season SAE 10W-30 oil which offers stable viscosity at various ambient temperatures. See Table 4 .
- When different type oil brands are used, be sure to drain all the previous oil before adding the new engine oil.

Oil Cartridge

Every 200 hours: Replace the engine oil filter cartridge (Figure 10) after every 200 hours of operation.

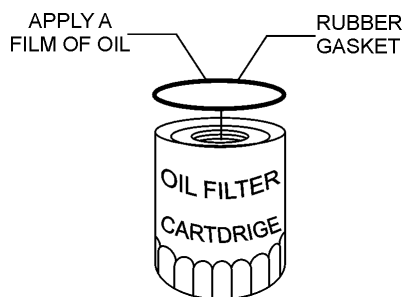


Figure 10. Oil Filter Cartridge

- Remove the old oil filter cartridge with a filter wrench.
- Apply a film of oil to the gasket for the new cartridge.
- Screw the new cartridge in by hand. **DO NOT** use the filter wrench to tighten the new filter.
- Run the engine for a few minutes, check for leaks. Check engine oil level, add oil if necessary.

Fuel Lines

Every 50 hours: Check the fuel lines and associated clamp bands every 50 hours of operation.

- If the rubber fuel lines and clamp bands become worn, replace them immediately. Replace all rubber fuel lines every two years.

Replacing the Fuel Filter

Every 400 hours: Replace the fuel filter (Figure 11) every 400 hours.

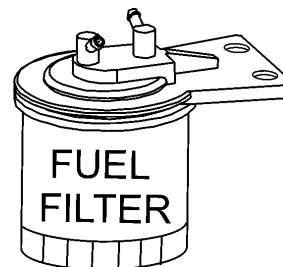


Figure 11. Fuel Filter

Fuel Addition

When adding diesel fuel to the fuel tank, the grade may vary according to season and locations. Typically use **No. 2 diesel fuel** will filling the fuel tank. Always pour through a mesh filter, this will prevent sand and dirt from entering the fuel system.

Removing Water (Condensation) from the Fuel Tank

After prolonged use, water and other impurities accumulate in the bottom of the tank. Occasionally remove the drain cock and drain the contents. During cold weather, the more empty area inside the tank, the easier it is for water to accumulate. This can be reduced by always keeping the tank as full as possible.

NOTE

The fuel tank for this generator is contained within the trailer section of the Modular Light Tower (MLT).

Air Removal

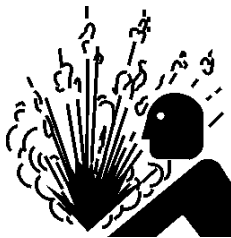
If air enters the fuel system of a diesel engine, starting becomes impossible. After running out of fuel, or after disassembling the fuel system, bleed the system according to the following procedure.

To restart after running out of fuel, turn the key switch to the "START" position for 15-30 seconds. Try again, if needed. This unit is equipped with an automatic air bleeding system.

Radiator

Check Daily: Coolant will last for one day's work if filled to the maximum level.

CAUTION:



- **NEVER** remove the radiator cap while the coolant is *hot!* Let radiator cool before removing cap. Severe burns and bodily injury could result from removing the radiator cap when the radiator is hot.
- **NEVER** stop engine suddenly to add coolant, let engine idle for 3-5 minutes with no load. Then shut-down engine and let cool.

Checking Coolant Level

1. Remove the radiator cap (Figure 12) only after the engine has completely **cooled**, and check to see that the coolant reaches the supply port.

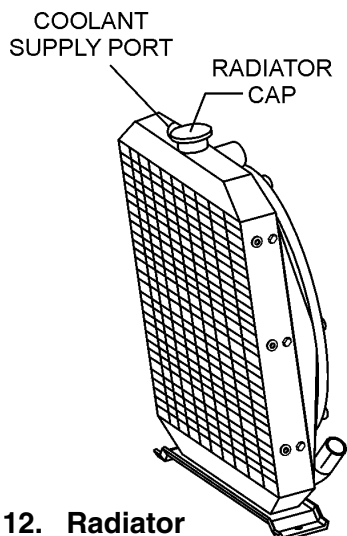


Figure 12. Radiator

2. Check the coolant level in the reserve tank, (Figure 13), make sure it is filled to the "FULL" marking with coolant. The coolant will last for one days work if filled to the "FULL" mark. Replenish coolant as coolant approaches "LOW" marking on reserve tank.
3. **DO NOT** refill the reserve tank with coolant beyond the "FULL" marking.

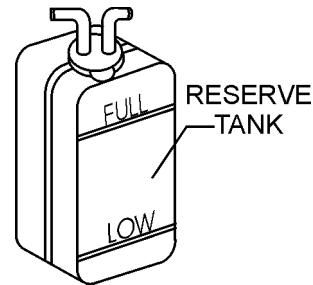


Figure 13. Reserve Tank

Adding Coolant/Anti-freeze

Day-to-day addition of coolant or antifreeze is done via the reserve tank. See Table 6 for engine/radiator and reserve tank coolant capacities and Table 7 for coolant operating temperatures. Make sure that the coolant level in the reserve tank is always between the "FULL" and the "LOW" markings.

Capacity	
Engine and Radiator	3.1 Liters (0.82 Gal.)
Reserve Tank	.6 Liters (Full Mark)

Vol % Anti-Freeze	Freezing Point		Boiling Point	
	°C	°F	°C	°F
40	-24	-12	106	222
50	-37	-34	108	226

Anti-freeze Recommendations

- Use rubber gloves when handling anti-freeze.
- When anti-freeze comes in contact with the skin or clothing, wash it off immediately.
- **DO NOT** mix different types of anti-freeze.
- Keep fire, children and animals away from anti-freeze.
- Check with local safety codes on the proper disposal techniques of anti-freeze.

NOTE

When the anti-freeze is mixed with water, the anti-freeze mixing ratio must be less than 50%.

The battery is sufficiently charged if the specific gravity of the battery fluid is 1.28 (at 68° F). If the specific gravity should fall to 1.245 or lower, it indicates that the battery is dead and needs to be recharged or replaced.

Check to see whether the battery cables are loose. Poor contact may result in poor starting or malfunctions, always keep the terminals firmly tightened. Coating the terminals with a thin film of grease will help to inhibit corrosion.

The battery gradually deteriorates over time. The actual life span will vary according to operating conditions, but generally a battery two years or older should be replaced.

1. Make sure each **electrolyte** level (Figure 14) is to the bottom of the **vent well**. If necessary add **distilled** water in a well-ventilated area.

Battery

CAUTION:

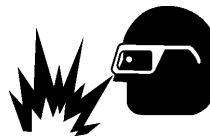


- **ALWAYS** follow safety rules when handling the battery. **NEVER** charge the battery in a flammable environment. **ALWAYS** keep open sparks and flames away from the battery at all the times.

- **NEVER** let the battery's electrolyte contact your body or clothing. **ALWAYS** wear gloves when handling the battery.



- **ALWAYS** wear eye protection and rubber gloves when handling the battery. Remember the diluted sulfuric acid solution within the battery burns skin and eats holes in clothing.



- If any part of your body comes in contact with the sulfuric acid of the battery, immediately wash it off with running water and get medical attention.

This unit is of negative ground. **DO NOT** connect in reverse. Always maintain battery fluid level between the specified marks. Battery life will be shortened, if the fluid level is not properly maintained. Add only distilled water when replenishment is necessary.

BATTERY ELECTROLYTE
LEVEL

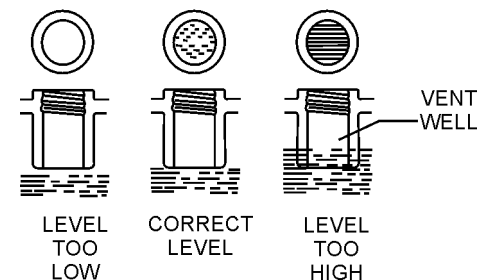


Figure 14. Battery Electrolyte Level

Direction For Long Term Storage (Battery)

1. Remove the battery from the generator. Adjust the electrolyte to the correct level, and store in a dry and dark place.
2. Recharge battery once a month in summer, and every two months in winter.

Generator

Capacitor Regulation

A single capacitor is used to regulate the voltage to within 5% of the rated load.

- **ALWAYS USE EXTREME CAUTION** when handling capacitors. The capacitor will still contain a high voltage even after the engine has been shut-down.
- **ALWAYS** discharge the capacitor before handling. Use a conductor or a screwdriver (Figure 15) with an insulated handle. Place screwdriver across both capacitor terminals while holding onto the handle. This will short out the voltage and discharge the capacitor.

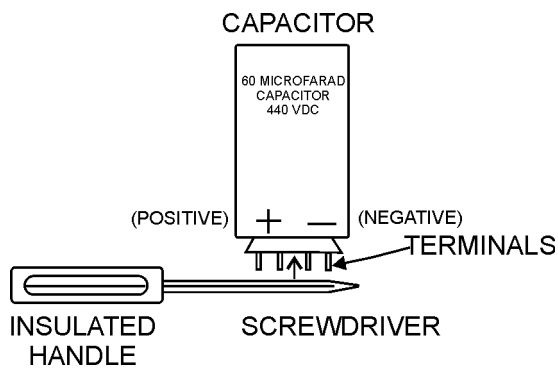


Figure 15. Discharging Capacitor

Checking the Charge of the Capacitor

1. Use an "**OHMMETER**" to check the **charge** and **discharge** of the capacitor. Set the ohmmeter to the RX-1000 scale.
2. Place the ohmmeter leads on the capacitor terminals one at a time. A meter deflection should be seen (charging), followed by a slow return to infinity (discharging).
3. Reverse the ohmmeter leads and repeat the procedure. The results should be the same. Replace the capacitor if no meter deflection or continuity has been indicated by the ohmmeter.

Flashing Rotor Procedure

NOTE

DO NOT run the generator during this procedure.

1. Disconnect all incoming power leads to the generator.
2. Connect the (+) lead of a 12 volt battery to the "R" connection (Figure 16).

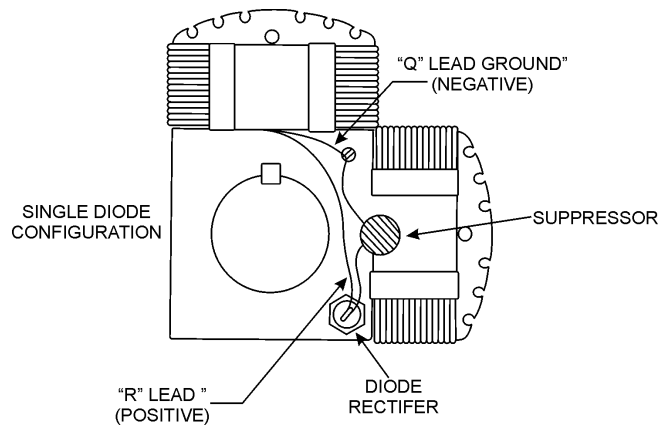


Figure 16. Flashing The Rotor Configuration

3. Connect the (-) lead of the battery to the rotor shaft.
4. Re-connect all incoming power leads to the generator
5. Start the generator as outlined in the "**Operating Section**" of this manual.
6. With a voltmeter check the no load voltage at the 120/240 output connector located on the control box.
7. The no load should be within 10% of the rated load.
8. If residual voltage is normal, the capacitor is defective and should be replaced.

Diode Check

1. Check the diode individually by removing the (+) **rotor lead stud** connection (Figure 16). The diode is good if the resistance reading is approximately mid-scale on the lowest ohm scale.
2. Check for leakage in the diode by reversing the polarity. The diode is good if the resistance reading is **infinite**.
3. A faulty diode will give a resistance value of **zero**.

KD1800/KD6 — PREPARATION FOR LONG -TERM STORAGE

Generator Storage

For storage of the generator for over 30 days, the following is required:

- Drain the fuel tank completely.
- Completely drain the oil from the crankcase and refill with fresh oil.
- Disconnect the **negative** battery cable from the battery.
- Clean all external parts of the generator with a cloth.
- Cover the generating set and store in a clean, dry place.

KD1800/KD6 — TROUBLESHOOTING (GENERATOR)

Practically all breakdowns can be prevented by proper handling and maintenance inspections, but in the event of a breakdown, please take a remedial action following the

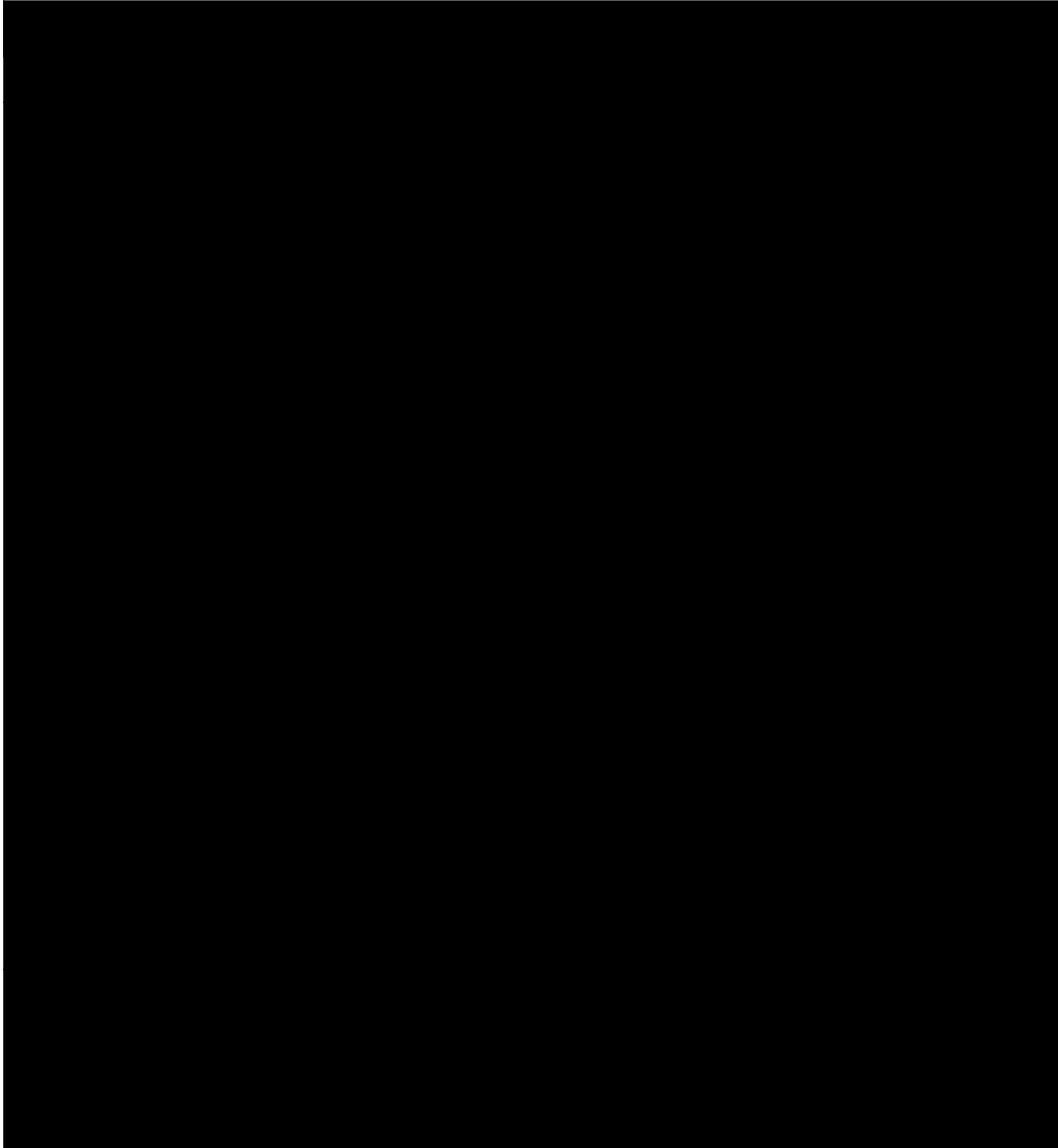
diagnosis based on the Generator Troubleshooting (Table 8) information shown below . If the problem cannot be remedied, please leave the unit just as it is and consult our company's business office or service plant.

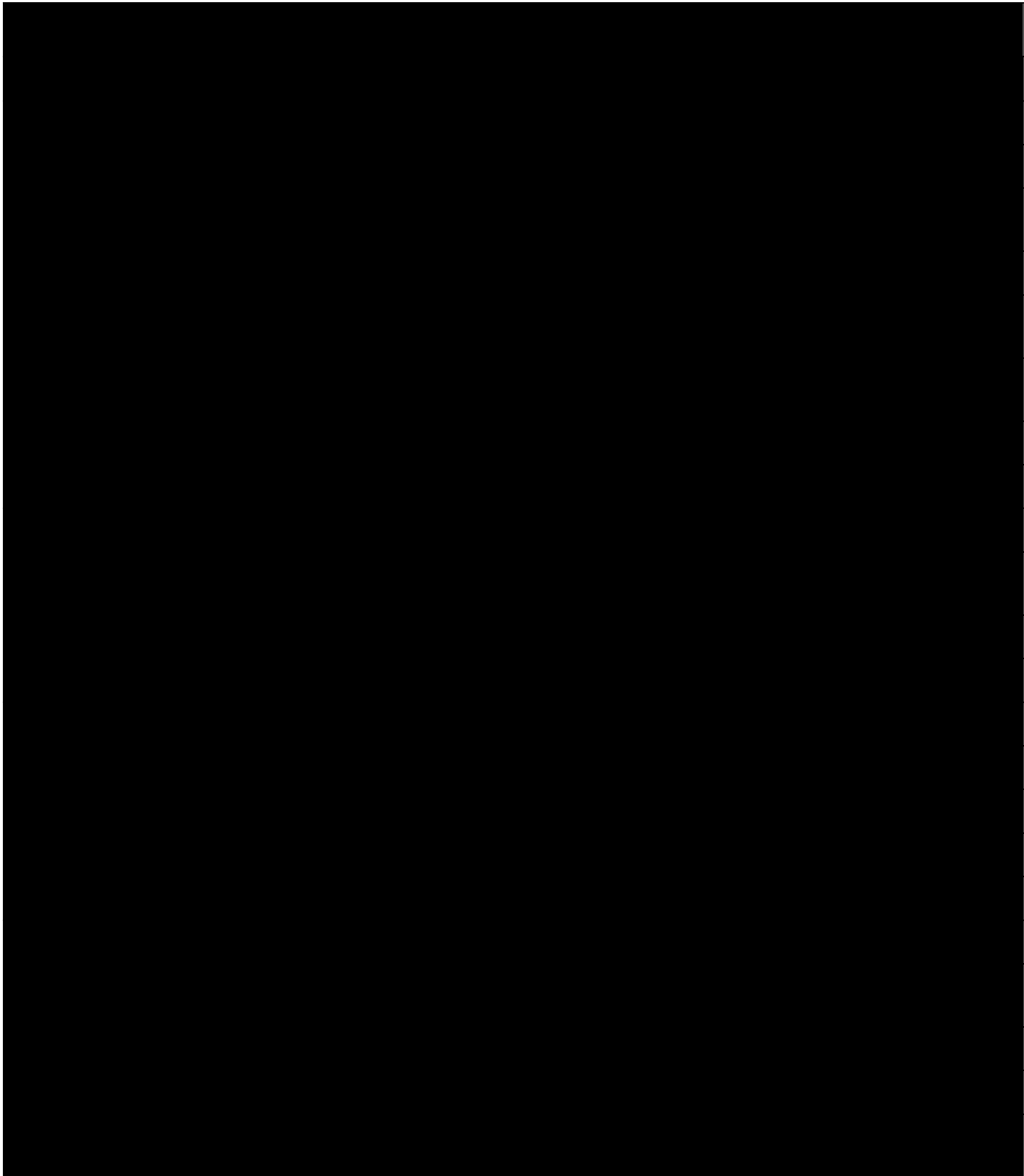
SYMPTON	POSSIBLE PROBLEM	SOLUTION
Will not hold voltage.	Has generator been stored too long?	Perform "Flash Rotor" procedure.
	Rotor shorting out when generator gets hot?	Check rotor windings for broken or burned wires.
	Pinched wire leads?	Examine all wire leads. Replace as necessary.
	Defective capacitor?	Replace.
	Defective diodes?	Replace diodes.
Full voltage at no load- voltage drops at full load.	Loose or broken wire leads?	Check lead wires and connections?
	Rotor open or shorted?	Measure resistance between leads.
	Stator grounded or shorted?	Consult factory.
Voltage too LOW	Loss of residual magnetism?	Perform "Flash Rotor" procedure.
	Low engine speed?	Set engine speed to 1800 rpm's, 60 Hz.
Voltage too HIGH	Fast engine speed?	Set engine speed to 1800 rpm's, 60 Hz.
Uncontrollable Voltage	Incorrect engine adjustment?	Check engine operation, speed, fuel lines and injectors.
No voltage at "no-load" or "full load"	Faulty suppressor?	Disconnect from circuit. If there is an obvious increase in voltage, replace suppressor.
Voltage spikes appearing in sine wave.	Incorrect engine adjustment, fuel line, or poor gas?	Change fuel filter and check engine speed.
	Loose connection?	Inspect all connections.
	Bad ground connection?	Inspect all ground connections.

KD1800/KD6 — TROUBLESHOOTING (ENGINE)

Practically all breakdowns can be prevented by proper handling and maintenance inspections, but in the event of a breakdown, please take a remedial action following the

diagnosis based on the Engine Troubleshooting (Table 9) information shown below and on the proceeding page . If the problem cannot be remedied, please leave the unit just as it is and consult our company's business office or service plant.





KD1800/KD6 — EXPLANATION OF CODES 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

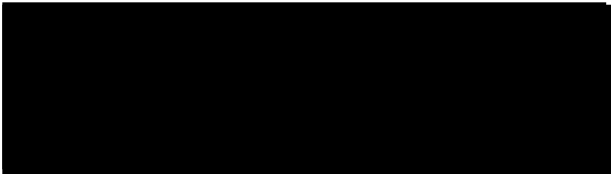
Serial Numbers-Where indicated, this indicates a serial number range (inclusive) where a particular part is used.

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

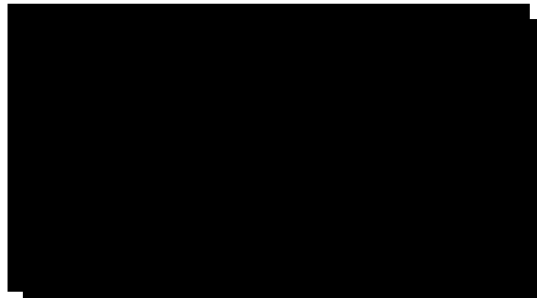
All parts with same symbol in the number column, *, #, +, %, or ■, belong to the same assembly or kit.

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

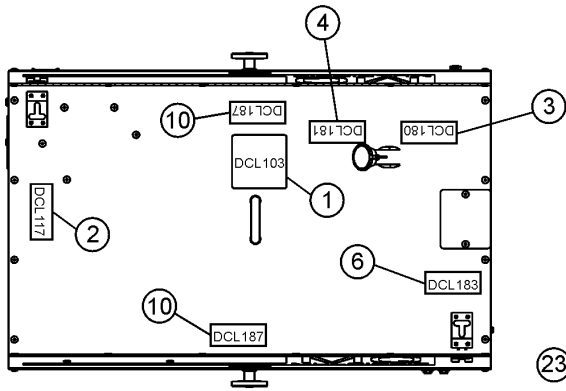


KD1800/KD6 W/KUBOTA D905EBG-2 DIESEL ENGINE 1 TO 3 UNITS

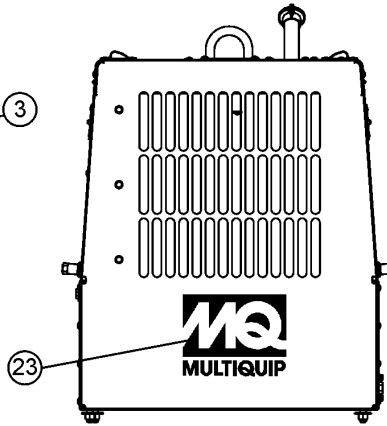
Qty.	P/N	Description
5	1627132092	OIL FILTER
2	1491197010	V-BELT
1	1522443013	FUEL FILTER
5	29334	OIL PRESSURE SENSOR
5	29333	WATER TEMPERATURE SENSOR
1	20511	IGNITION SWITCH
2	12940	KEYS
1	29344	TIMER GLOW PLUG
1	1624173350	BYPASS HOSE
1	1626672941	UPPER RADIATOR HOSE
1	1628672851	LOWER RADIATOR HOSE
1	1661611013	AIR CLEANER
1	29343	DUPLEX OUTLET
1	19212	HOUR METER
1	19223	CIRCUIT BREAKER 30 AMP
1	2673	CIRCUIT BREAKER 20 AMP



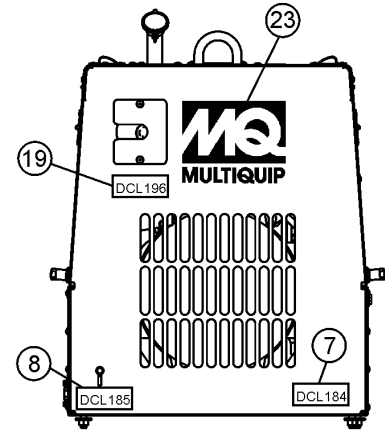
KD1800/KD6 — NAMEPLATE AND DECALS



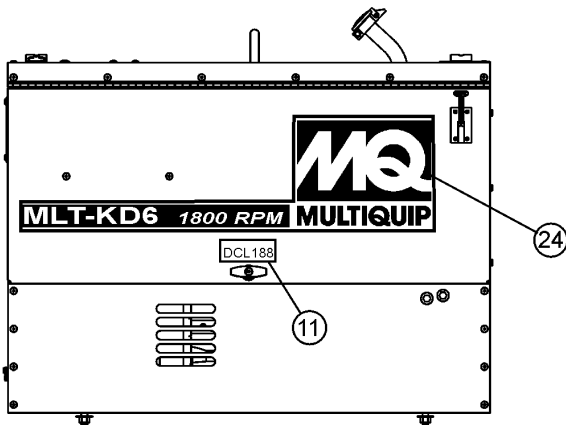
TOP VIEW



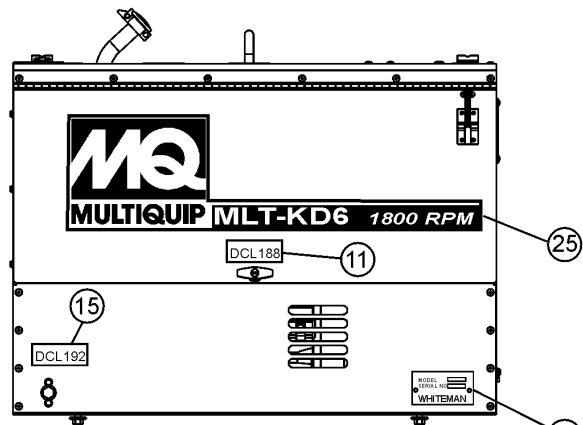
FRONT VIEW



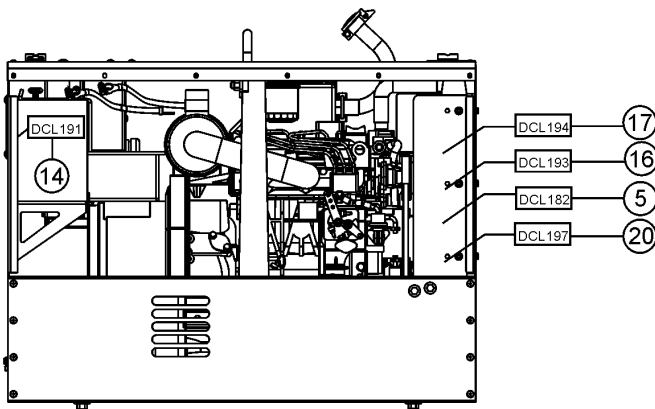
REAR VIEW



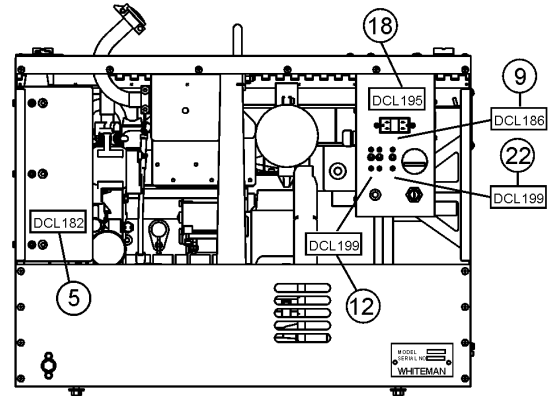
RIGHT-SIDE VIEW



LEFT-SIDE VIEW



RIGHT-SIDE VIEW
(DOOR REMOVED)



LEFT-SIDE VIEW
(DOOR REMOVED)

KD1800/KD6 — NAMEPLATE AND DECALS

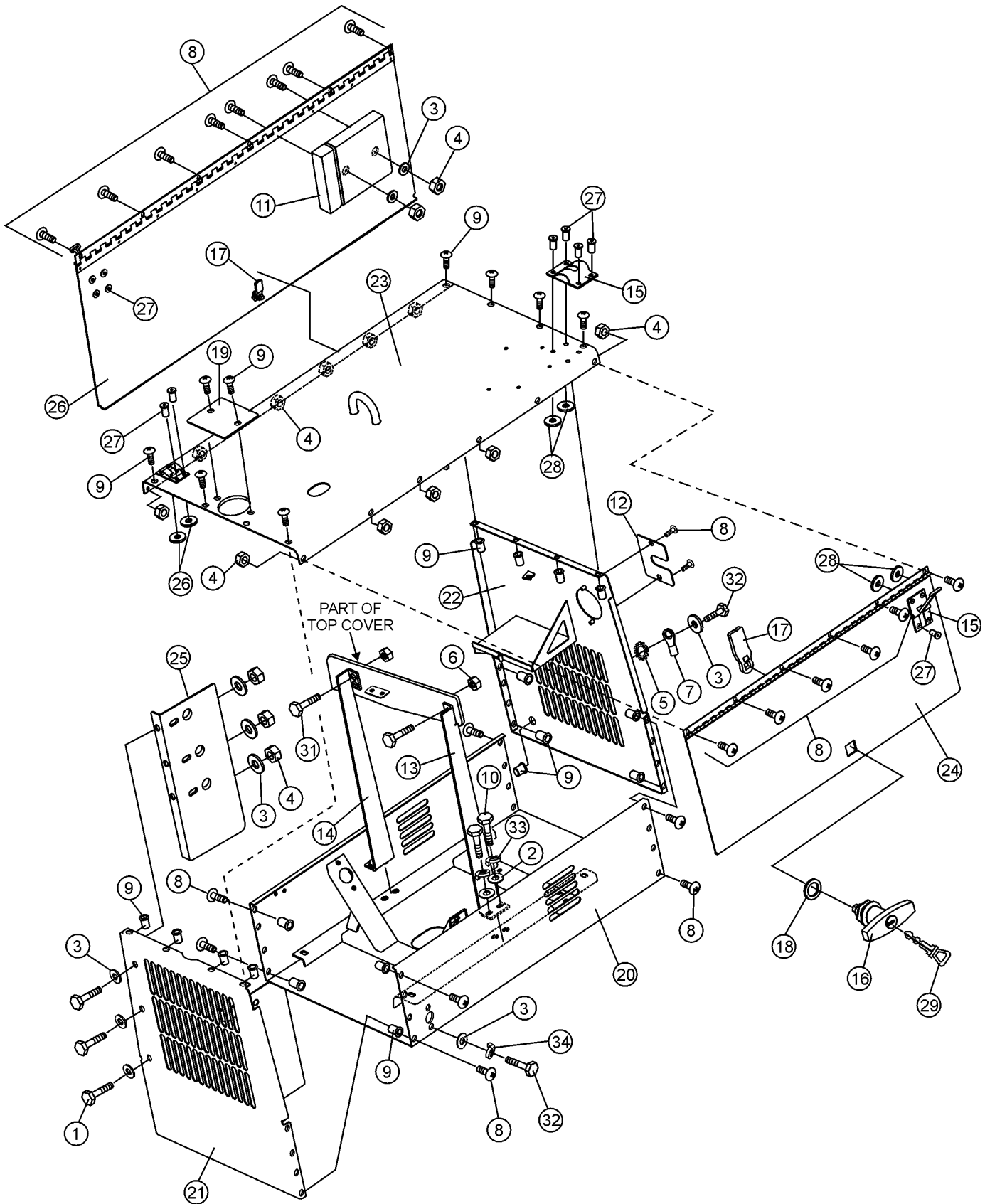
ENCLOSURE ASSY.

<u>NO.</u>	<u>PART NO.</u>	<u>PART NAME</u>	<u>QTY.</u>	<u>REMARKS</u>
1*	DCL103	DECAL: LIFTING HOOK	1	
2*	DCL117	DECAL: CAUTION SHUT-DOWN GENERATOR	1	
3*	DCL180	DECAL: WARNING DANGEROUS FUMES	1	
4*	DCL181	DECAL: CAUTION HOT PARTS, BURN SKIN	1	
5*	DCL182	DECAL: WARNING MOVING PARTS	2	
6*	DCL183	DECAL: HOT COOLANT	1	
7*	DCL184	DECAL: WARNING DIESEL FUEL	1	
8*	DCL185	DECAL: GROUND	1	
9*	DCL186	DECAL: GFCI, 120 VAC POWER, 15A OUTPUT	1	
10*	DCL187	DECAL: DANGER DO NOT TOUCH WIRING	2	
11*	DCL188	DECAL: OPERATE WITH DOORS CLOSED	2	
12*	DCL189	DECAL: 240 VAC/30A MAIN BREAKER	1	
13*	DCL190	DECAL: PRE-HEAT LAMP	1	
14*	DCL191	DECAL: DANGER EXPLOSIVE GAS	1	
15*	DCL192	DECAL: OIL DRAIN	1	
16*	DCL193	DECAL: CAUTION CHECK OIL LEVEL	1	
17*	DCL194	DECAL: CAUTION CHECK COOLANT LEVEL	1	
18*	DCL195	DECAL: OPERATING PROCEDURE	1	
19*	DCL196	DECAL: PLUG IN FLOOD LIGHT CABLE	1	
20*	DCL197	DECAL: OPERATE 1800 RPM	1	
21*	DCL198	DECAL: CONTROL PANEL	1	
22*	DCL199	DECAL: 120 VAC/15A GFCI BREAKER	1	
23	29360	DECAL: MQ MULTIQUIP	2	
24	29358	DECAL: MQ MULTIQUIP MLT-KD1800 (RIGHT)	1	UP TO S/N FK3000051
24	29358	DECAL: MQ MULTIQUIP MLT-KD6 1800 RPM (RIGHT)	1	
25	29359	DECAL: MQ MULTIQUIP MLT-KD1800 (LEFT)	1	UP TO S/N FK3000051
25	29359	DECAL: MQ MULTIQUIP MLT-KD6 1800 RPM (LEFT)	1	
26		DECAL: NAMEPLATE	1	CONTACT MQ SERVICE DEPT. W/MODEL AND S/N
27	29345	DECAL: KIT	1	INCLUDES ITEMS/*

SEE DECAL ILLUSTRATIONS ON PAGES 10 AND 11

KD1800/KD6 — ENCLOSURE ASSY.

ENCLOSURE ASSY.



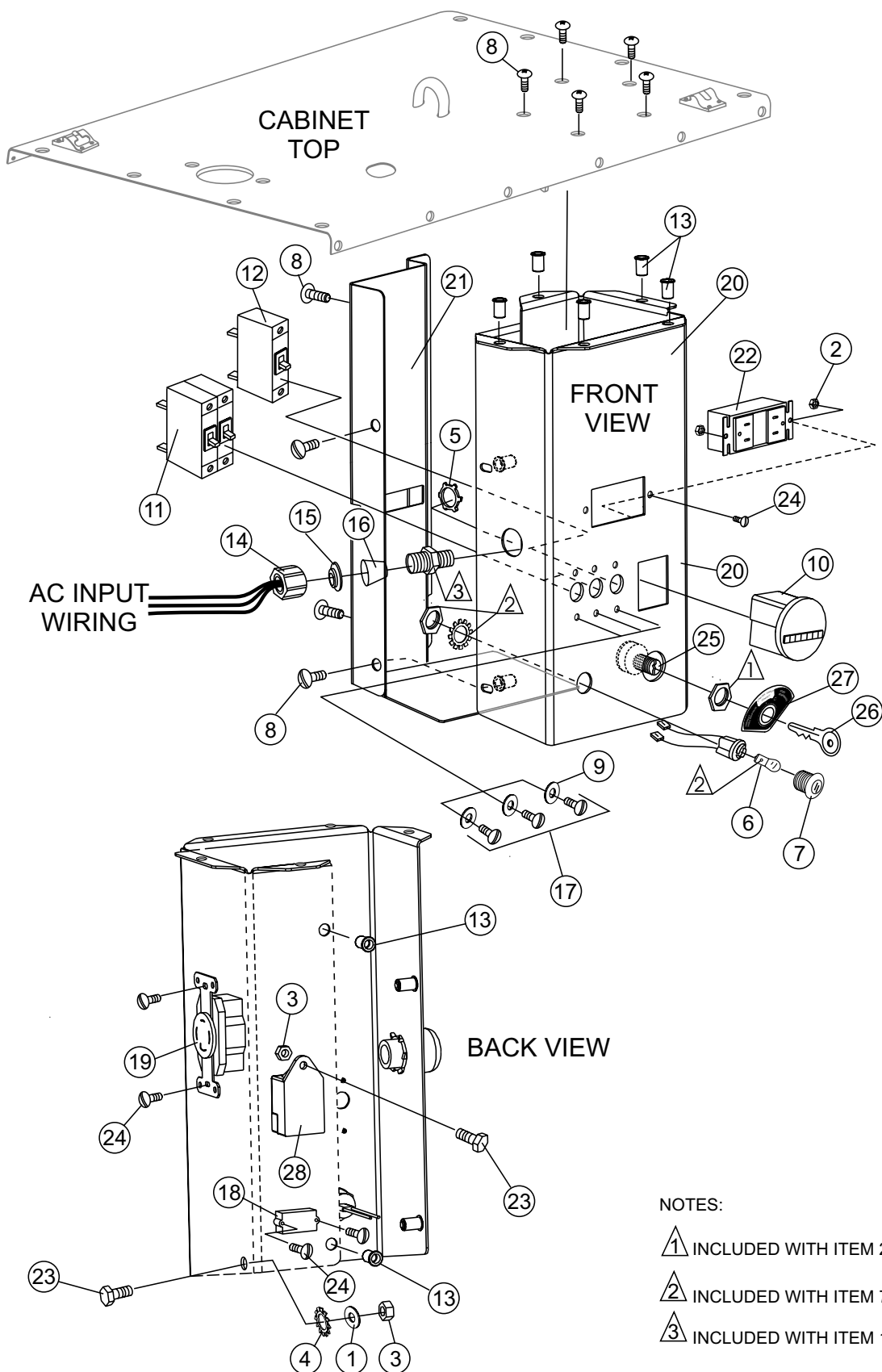
KD-1800 /KD-6 — ENCLOSURE ASSY.

ENCLOSURE ASSY.

<u>NO.</u>	<u>PART NO.</u>	<u>PART NAME</u>	<u>QTY.</u>	<u>REMARKS</u>
1	0131A	SCREW, HHC 1/4-20	3	
2	0447	WASHER, FLAT 1/2 SAE	4	
3	0948	WASHER FLAT, 1/4 SAE	11	
4	10024	NUT, NYLOC 1/4-20	17	
5	10031	WASHER, EXT SHKP 1/4	1	
6	10176	NUT, NYLOC 1/2-13	4	
7	10981	TERMINAL, RING 12 GA. X .312 INS	1	
8	12287	SCREW, THP 1/4-20 X 3/4 SS	42	
9	19266	RIVNUT 1/4-20	29	
10	2691	SCREW, HHC 1/2-13 X1	4	
11	29057	DOCUMENT BOX, (CP90007-07)	1	
12	29258	COVER, POWER CORD	1	
13	29260	SUPPORT, RIGHT-LEG	1	
14	29262	SUPPORT, LEFT-LEG	1	
15	29281	HOLD BACK, DOOR AUSTIN 5601-4	2	
16	29282	HANDLE, DOOR T-LOCKING	2	
17	29284	CAM, DOOR HANDLE	2	
18	29285	SPACER, DOOR HANDLE	2	
19	29291	COVER, RADIATOR CAP ACCESS	1	
20	29297	BASE, GEN SET W/A	1	
21	29298	PANEL, FRONT CABINET KD, W/A	1	
22	29299	PANEL. CABINET REAR, W/A	1	
23	29300	TOP, CABINET KD W/A	1	
24	29316	DOOR, KD1800 LEFT W/A	1	
25	29324	BRACKET, RADIATOR LEFT	1	
26	29340	DOOR, KD1800 RIGHT W/A	1	
27	29341	RIVET, POP 3/16" DIA X 1/4-3/8 SS	16	
28	29342	WASHER, 3/16" SS (POP RIVET SS	16	
29	29438	KEY, CABINET KD1800/KD6	2	
31	3214	SCREW, HHC 1/2-13 X 1-1/4	4	
32	4514	SCREW, HHC 1/4-20 X 5/8	3	
33	5054A	WASHER, LOCK, 1/2 MED	4	
34	0181B	WASHER, LOCK MED	2	

KD1800/KD6 — CONTROL BOX ASSY.

CONTROL BOX ASSY.



NOTES:

- ① INCLUDED WITH ITEM 25
- ② INCLUDED WITH ITEM 7
- ③ INCLUDED WITH ITEM 14

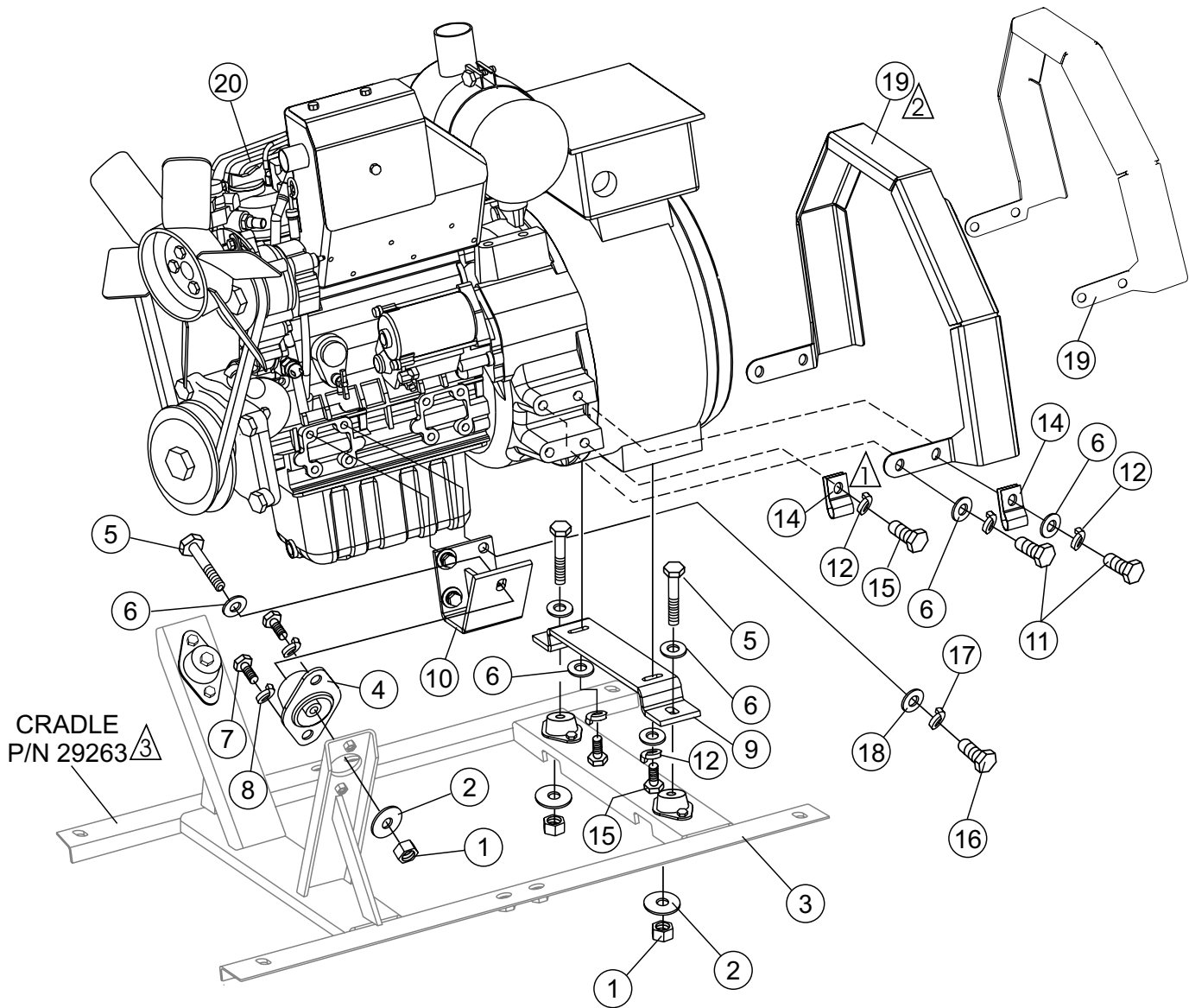
KD1800/KD6 — CONTROL BOX ASSY.

CONTROL BOX ASSY.

<u>NO.</u>	<u>PART NO.</u>	<u>PART NAME</u>	<u>QTY.</u>	<u>REMARKS</u>
1	0948	WASHER, FLAT, 1/4 SAE	2	
2	10019	NUT, NYLOC 10- 32	4	
3	10024	NUT, NYLOC 1/4- 20	2	
4	10031	WASHER, EXT. SHKP 1/4	1	
5	26560	NUT, LOCKING 3/4 NPT CONDUIT	1	
6	12307	+12 DCV BULB ASSY.	1	
7	29363	LIGHT, BLUE INDICATOR .75 DIA.	1	
8	12287	SCREW, THP 1/4- 20 X 3/4 SS	9	
9	1450	WASHER, FLAT # 6 SAE	6	
10	19212	HOUR METER ISSPRO R8861HV	1	
11	19223	CIRCUIT BREAKER, 30A 277V	2	
12	29376	CIRCUIT BREAKER, 15A, 277 VAC	1	
13	19266	RIVNUT 1/4- 20	9	
14	19695	CONN. STRAIN RELIEF, .625 TO .750	1	
15	6900446	SEAL RING .755 ID	1	
16	6900447	STRAIN RELIEF	1	
17	19819	SCREW, PAN HEAD 6- 32 X 1/4	6	
18	2673	CIRCUIT BREAKER (RE-SETTABLE), 30A, 12V	1	
19	29276	RECEPTACLE, 30A, 120/250 VAC	1	
20	29277	PANEL, CONTROL	1	
21	29325	SHROUD, CONTROL PANEL ASSEMBLY	1	
22	29343	DUPLEX OUTLET, 15A 120V GFCI	1	
23	4514	SCREW, HHC 1/4-20 X 5/8	2	
24	5065B	SCREW, RHM 10- 32 X 1/2	6	
25	20511	SWITCH, IGNITION W KEYS	1	
26	12940	KEY SET (KUBOTA)	1	
27	20486	DECAL, START	1	
28	29344	TIMER, GLOW PLUG (B905 KUBOTA)	1	

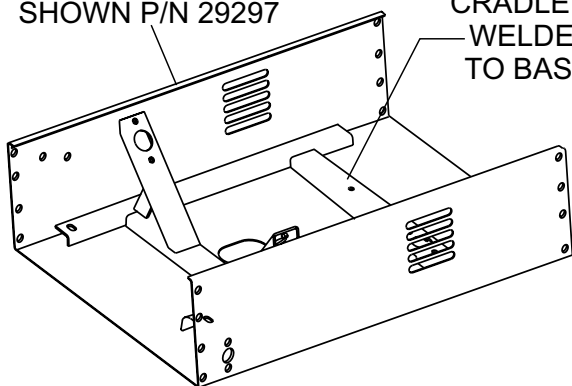
KD1800/KD6 — ENGINE MOUNTING HARDWARE ASSY.

ENGINE MOUNTING HARDWARE ASSY.



BASE AND CRADLE
SHOWN P/N 29297

CRADLE IS
WELDED
TO BASE



NOTES:

▲ ROUTE ENGINE CABLE HARNESS
THROUGH CLAMPS.

▲ USED WITH SERIAL NUMBERS
UP TO S/N FK3000051

▲ ENGINE CRADLE CANNOT BE
PURCHASED SEPARATELY.
ORDER P/N 29297 FOR ENGINE
CRADLE AND BASE.

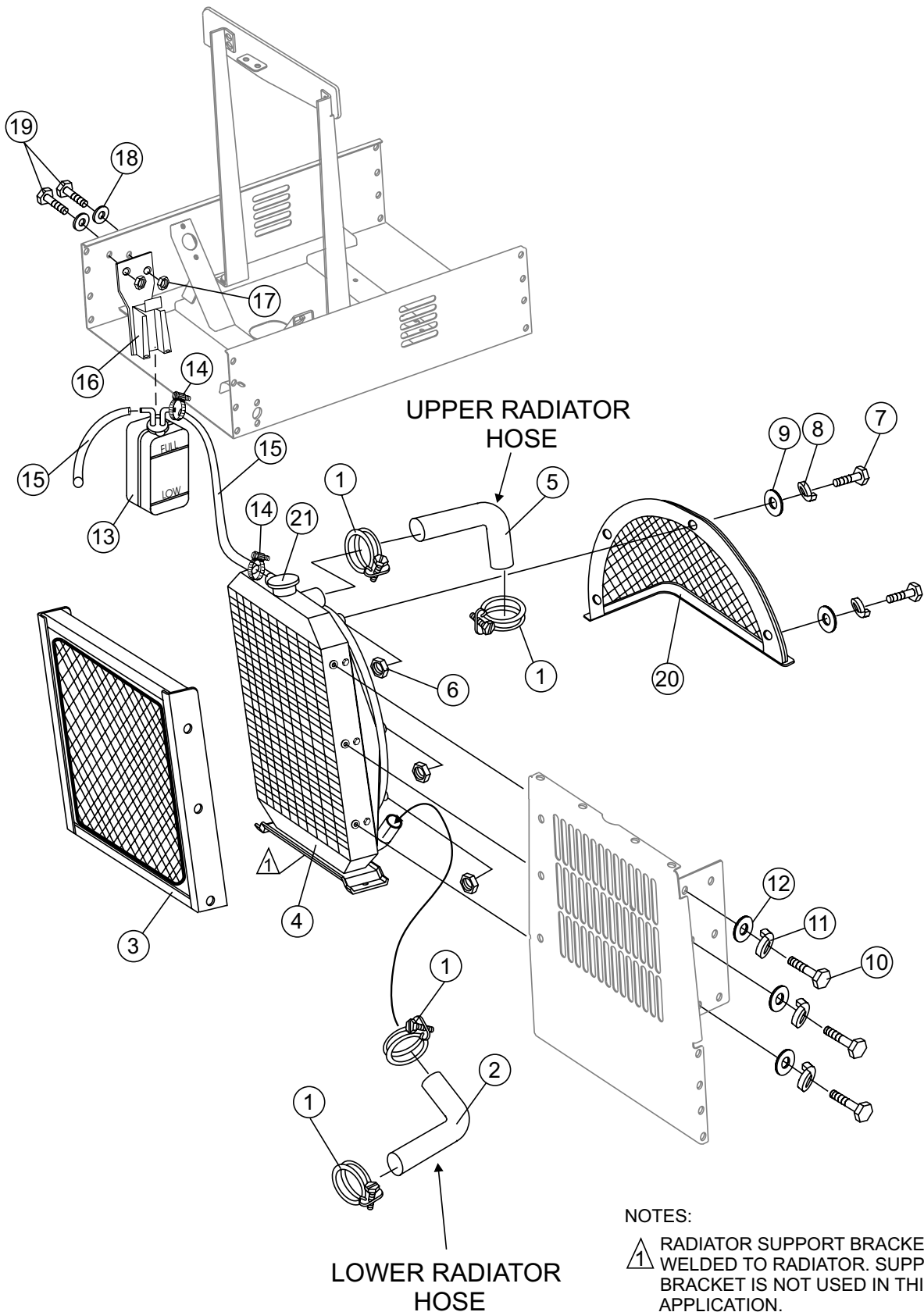
KD1800/KD6 — ENGINE MOUNTING HARDWARE ASSY.

ENGINE MOUNTING HARDWARE ASSY.

<u>NO.</u>	<u>PART NO.</u>	<u>PART NAME</u>	<u>QTY.</u>	<u>REMARKS</u>
1	10133	NUT, NYLOC 3/8"-16	5	
2	29336	WASHER SNUBBING, 2.00 O.D. x .45 I.D.	4	
3	29297	BASE ENG. SET W/A	1	CRADLE P/N 29263 IS WELDED TO BASE
4	29269	MOUNT, VIBRATORY ENGINE	4	
5	4370	SCREW, HHC 3/8"-16 x 2-1/4	4	
6	4001	WASHER, FLAT 3/8" PLTD, STD. USS	8	
7	0655	SCREW, HHC 5/16" x 18 x 1	8	
8	0161C	WASHER, LOCK, 5/16 MED	8	
9	29270	BRACKET, GENERATOR MOUNT	1	
10	29292	MOUNT, ENGINE (D905BG)	2	
11	0205	SCREW, HHC 3/8" x 16 x 1	4	
12	0166A	WASHER, LOCK	7	
14	8126	CLAMP, HOSE SUPPORT, 1/2"	2	
15	4196	SCREW, HHC 3/8"-16 x 3/4	3	
16	1162	HHC, SCREW M10 1.25 x 25 MM	8	
17	2955	WASHER, LOCK 7/16"	8	
18	10136	WASHER, FLAT 3/8	8	
19	29318	SHROUD, LARGE BOX MARATHON	1	UP TO S/N fk3000051
19	29319	SHROUD, SMALL BOX MARATHON	1	
20	19623	ENGINE ASSY. KUBOTA D905BG 12 HP	1	

KD1800/KD6 — RADIATOR ASSY.

RADIATOR ASSY.



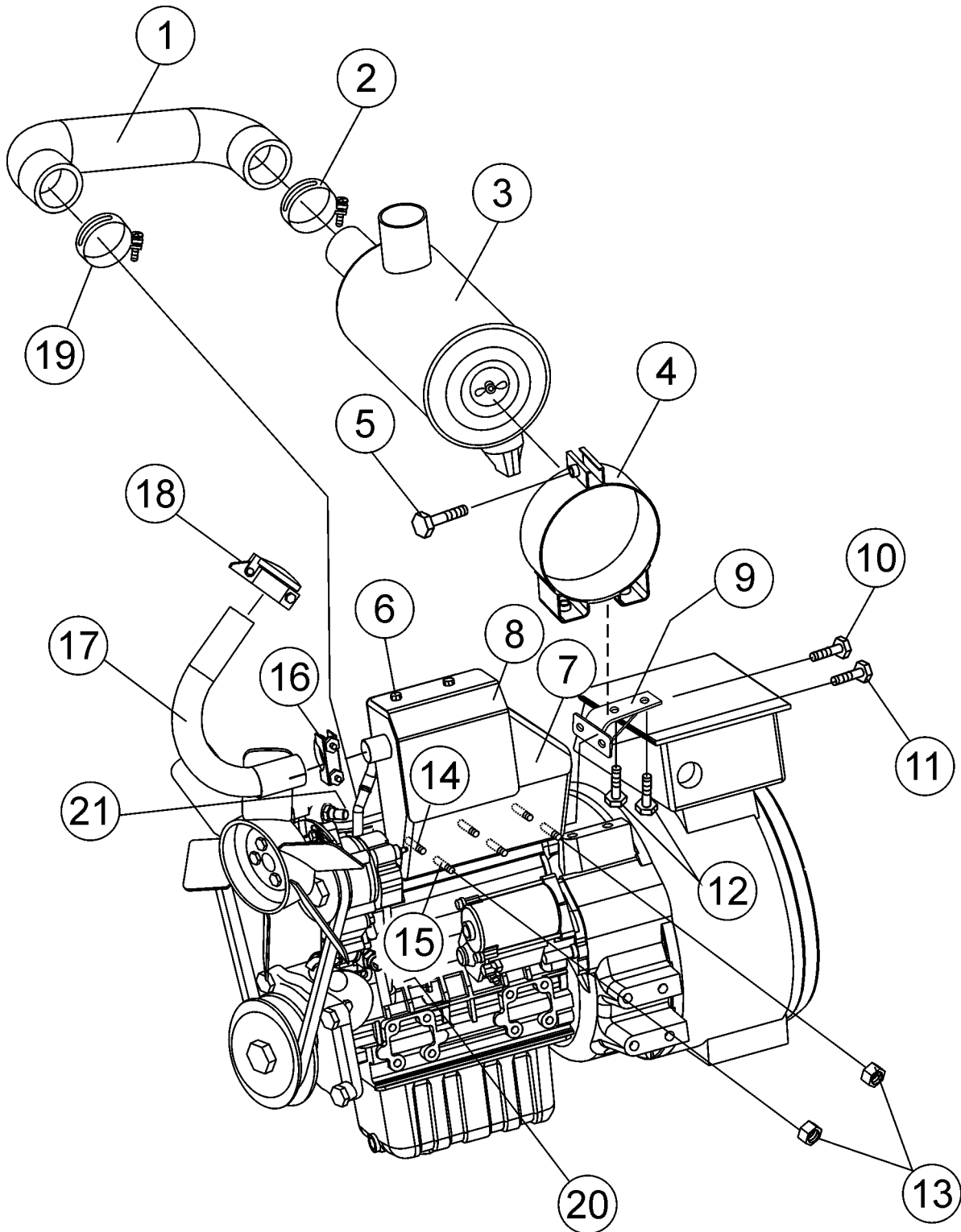
KD1800/KD6 — RADIATOR ASSY.

RADIATOR ASSY.

<u>NO.</u>	<u>PART NO.</u>	<u>PART NAME</u>	<u>QTY.</u>	<u>REMARKS</u>
1	0931889039	CLAMP, HOSE	4	
2	1628672851	HOSE, RADIATOR (LOWER) 27 MM I.D.	1	
3	1941672251	NET, RADIATOR	1	
4	1661372062	RADIATOR ASSY.	1	
5	1626672941	HOSE, RADIATOR (LOWER)	1	
6	0205650060	NUT	4	
7	0105350614	BOLT	4	
8	0451250060	WASHER, LOCK	4	
9	0401450060	WASHER, PLAIN	4	
10	0102350612	BOLT	6	
11	0401550060	WASHER, SPLIT	6	
12	0948	WASHER, FLAT, 1/4 SAE	6	
13	11983	BOTTLE, OVERFLOW RADIATOR	1	
14	19473	CLAMP	2	
15	60013	HOSE .25 ID	4 FT.	
16	1944972502	OVERFLOW BOTTLE SUPPORT BRACKET	1	
17	10133	NUT, NYLOC 3/8"-18	2	
18	4001	WASHER, FLAT 3/8" PLTD STD. USS	2	
19	0166	SCREW, HHC 3/8"-16 x 7/8	2	
20	1661374121	COVER, FAN 380 MM BOLT CIRCLE	1	
21	1527272020	CAP, RADIATOR	1	

KD1800/KD6 — AIR CLEANER AND MUFFLER ASSY.

AIR CLEANER AND MUFFLER ASSY.



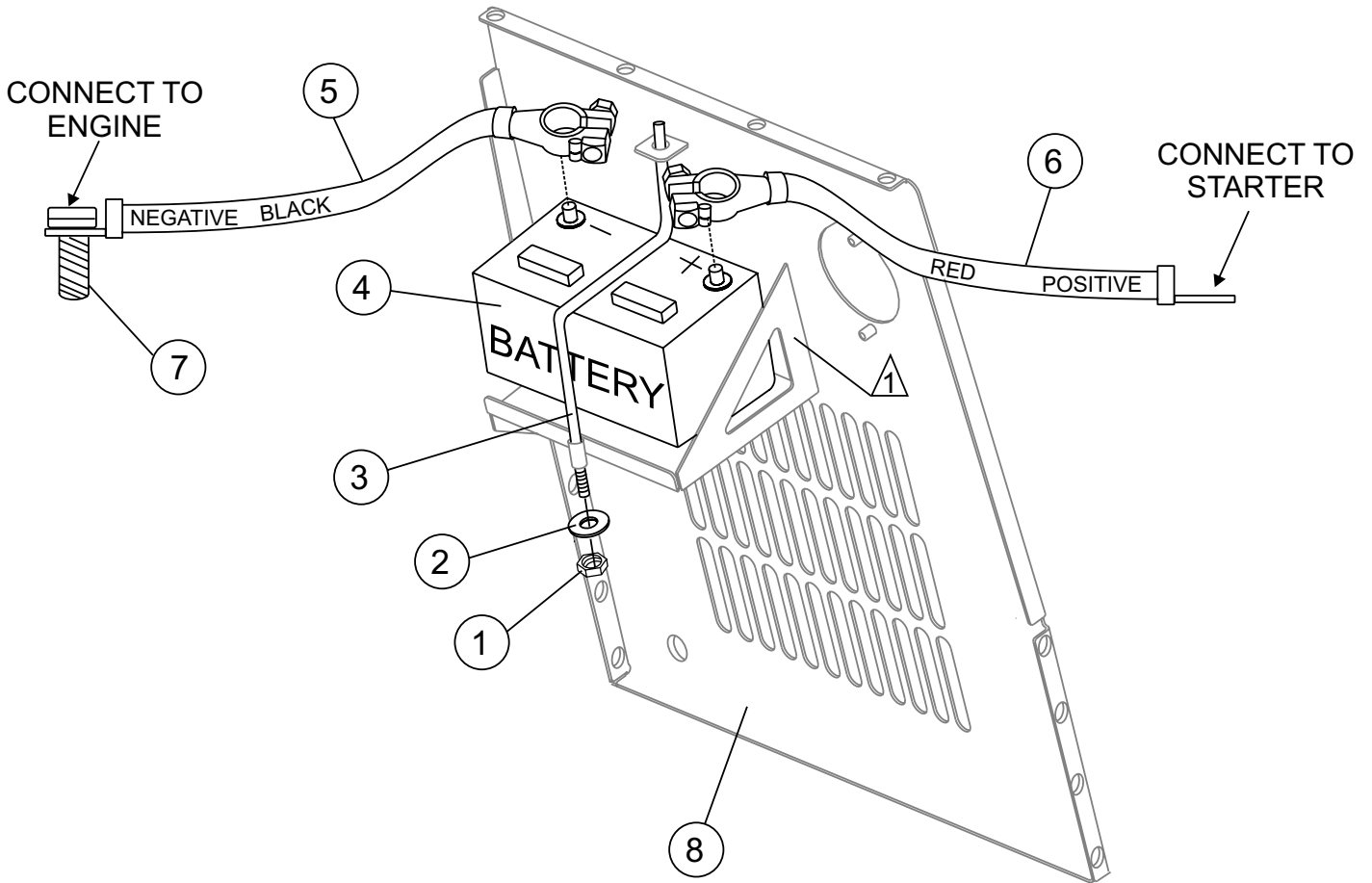
KD1800/KD6 — AIR CLEANER AND MUFFLER ASSY.

AIR CLEANER AND MUFFLER ASSY.

<u>NO.</u>	<u>PART NO.</u>	<u>PART NAME</u>	<u>QTY.</u>	<u>REMARKS</u>
1	1661611621	PIPE INLET	1	
2	1540111721	CLAMP, PIPE	1	
3	1661611013	AIR CLEANER	1	
4	1500036931	BAND, AIR CLEANER	1	
5	0112350835	BOLT	1	
6	0175450610	FLANGE BOLT	3	
7	7663058110	COVER, MUFFLER	1	
8	6795058510	MUFFLER ASSY	1	
9	1661611571	STAY, AIR CLEANER`	1	
10	0112350820	BOLT	1	
11	0112350816	BOLT	1	
12	0112350814	BOLT	2	
13	1627191010	NUT	6	
14	1626191510	STUD (SHORT)	3	
15	1626191520	STUD (LONG)	3	
16	29275	CLAMP, MUFFLER 1-3/8"	1	
17	29290	EXHAUST PIPE	1	
18	29397	EXHAUST, RAIN CAP 1-3/8 O.D.	1	
19	1522111722	CLAMP, PIPE	1	
20	29334	OIL PRESSURE SENSOR	1	
21	29333	WATER TEMP. SENSOR	1	

KD1800/KD6 — BATTERY ASSY.

BATTERY ASSY.



NOTES:

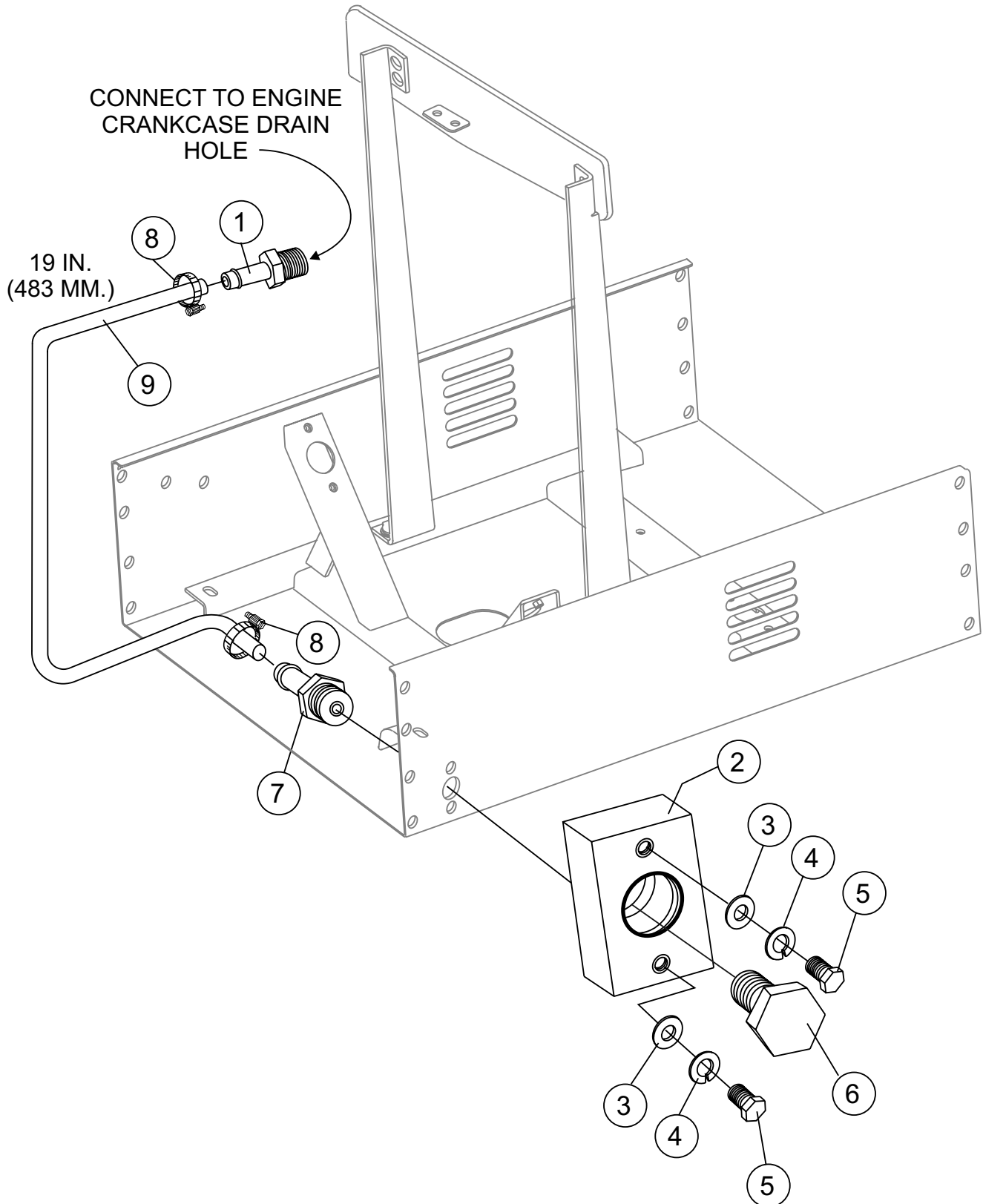
- ⚠ BATTERY TRAY IS WELDED TO PANEL AND CANNOT BE PURCHASED SEPARATELY.

BATTERY ASSY.

<u>NO.</u>	<u>PART NO.</u>	<u>PART NAME</u>	<u>QTY.</u>	<u>REMARKS</u>
1	10024	NUT, NYLOC 1/4-20	1	
2	0948	WASHER, FLAT 1/4 SAE	1	
3	29311	HOLD-DOWN, BATTERY	1	
4	10315	BATTERY (WET) 12V GR22	1	
5	10313	CABLE, NEG BATTERY BLK 20"	1	
6	19303	CABLE, POS BATTERY RED 48" (POST)	1	
7	0205	SCREW, HHC 3/8-16 x 1	1	
8	29299	PANEL CABINET REAR W/A	1	

KD1800/KD6 — DRAIN PLUG ASSY.

DRAIN PLUG ASSY.

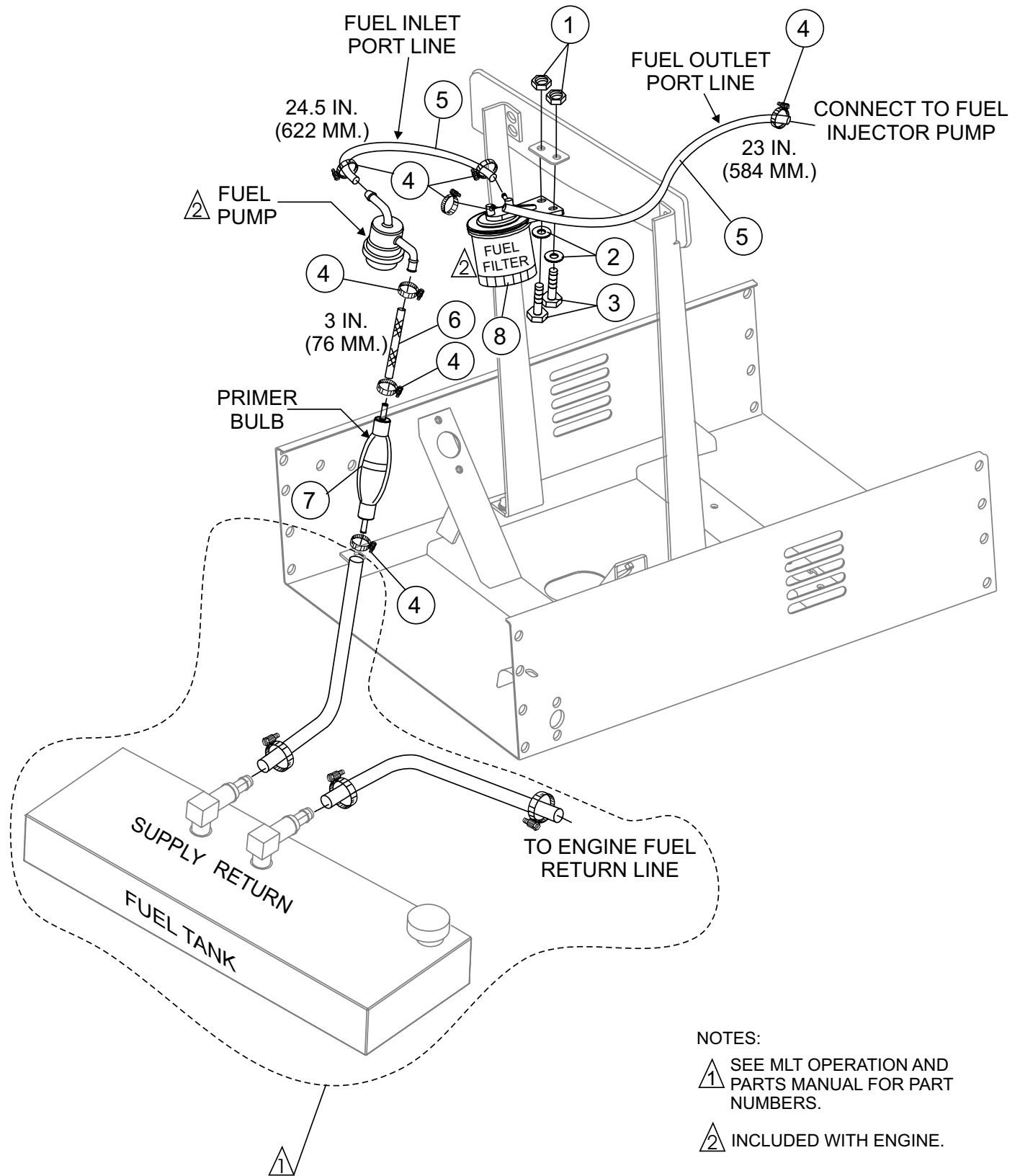


KD1800/KD6 — DRAIN PLUG ASSY.

DRAIN PLUG ASSY.

<u>NO.</u>	<u>PART NO.</u>	<u>PART NAME</u>	<u>QTY.</u>	<u>REMARKS</u>
1	29304	FITTING 12 x 1.25 MM TO 3/8" HOSE BEAD	1	
2	29274	BLOCK, REMOTE FLUID DRAIN	1	
3	0948	WASHER, FLAT 1/4" SAE	8	
4	0181B	WASHER, LOCK	2	
5	4514	SCREW, HHC 1/4"-20 x 5/8	2	
6	29272	FITTING, 8 MO PLUG	1	
7	29303	FITTING, 3/8-18 NPT TO 3/8" HOSE BEAD	1	
8	19473	CLAMP, WORM HOSE (1/4"-5/8")	2	
9	60028	HOSE .312 I.D. 19"	1	

FUEL ASSY.

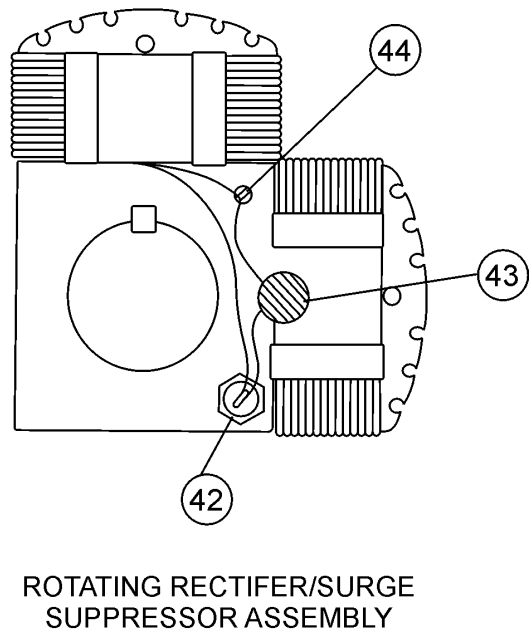
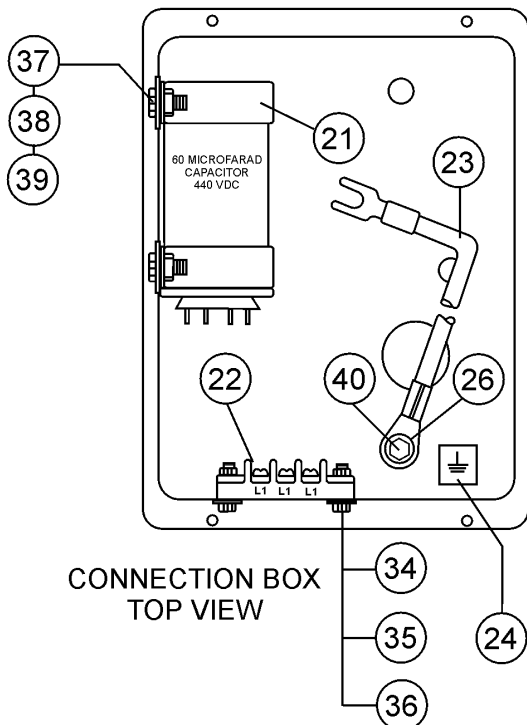
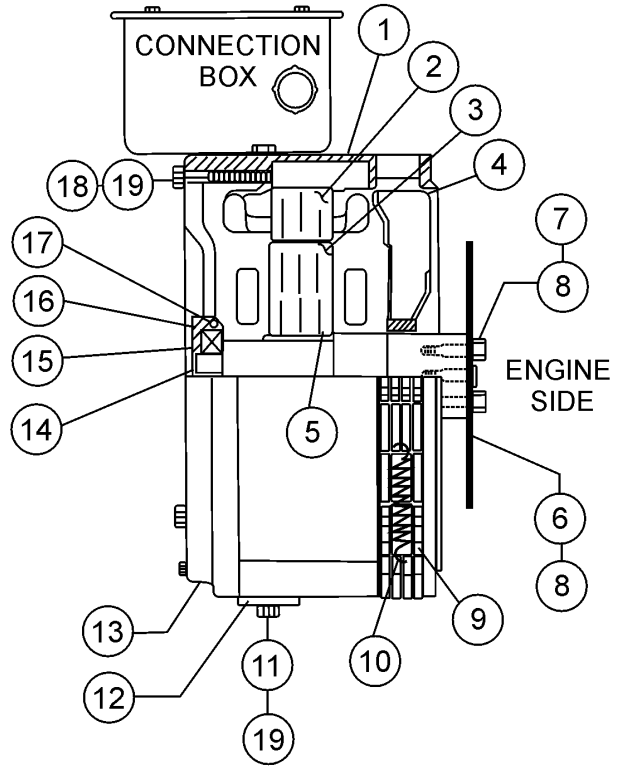
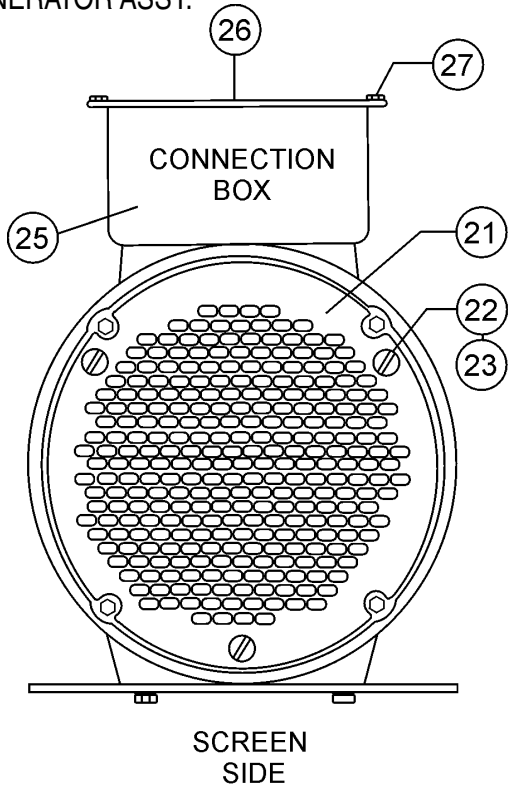


FUEL ASSY.

<u>NO.</u>	<u>PART NO.</u>	<u>PART NAME</u>	<u>QTY.</u>	<u>REMARKS</u>
1	5283	NUT, NYLOC 5/16"-18	2	
2	0300B	WASHER, FLAT 5/16"	2	
3	0202	SCREW, HHC 5/16" x 18 x 1	2	
4	19473	CLAMP, WORM HOSE (1/4-5/8)	6	
5	60013	HOSE, .25 I.D. RUBBER FUEL LINE	4 FT	
6	60028	HOSE, .312 I.D. RUBBER FUEL LINE 3"	1	
7	29338	PRIMER BULB, 5/16" BARB ENDS	1	
8	1522443013	FUEL FILTER	1	

KD1800/KD6 — GENERATOR ASSY.

GENERATOR ASSY.



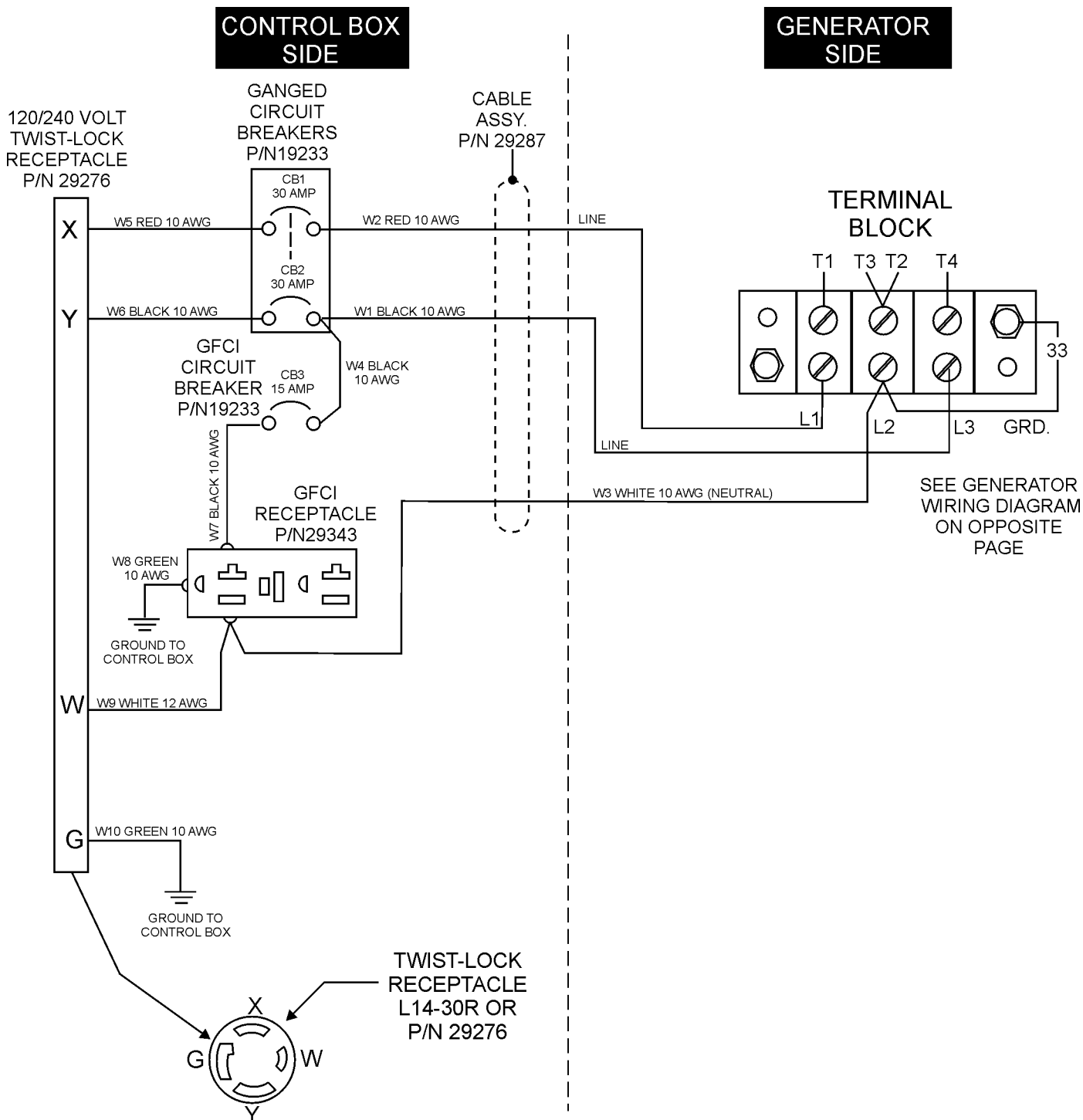
KD1800/KD6 — GENERATOR ASSY.

GENERATOR ASSY.

<u>NO.</u>	<u>PART NO.</u>	<u>PART NAME</u>	<u>QTY.</u>	<u>REMARKS</u>
1#	70611501	FRAME	1	
2#	7820010A	MAIN STATOR	1	
3#	7865000A	MAIN ROTOR	1	
4#	71600201	FAN	1	
5#	80986517	KEY, 0.380 X 0.380 X 2.380	1	
6#		DRIVE DISCS	2	SEE ADAPTION KIT FOR P/N
7#		HEX SOC. HD. CAP SCREW 3/8- 24	6	SEE ADAPTION KIT FOR P/N
8#	72533301	HARDENED SPACER DISC	1	
9#	72062501	SCREEN ASSEMBLY	1	
10#	9608925	EXTENSION SPRING	1	
11#	80100407	HEX HD. CAP SCREW, 3/8- 16 X 1.5 GR5 ZN	2	
12#	71802601	FOOT PLATE	1	OPTIONAL
13#	70300401	BEARING BRACKET	1	
14#	70164401	SHAFT	1	
15#	A90006R35	BEARING	1	
16#	83282456	RETAINING RING	1	
17#	86586901	O RING	1	
18#	80100212	SCREW, HEX HD. CAP 5/16- 18 X 2.75 GR5 ZN	4	
19#	80106506	WASHER, SPLIT LOCK 5/16	4	
20#	7238360A	TOP MOUNTED CONNECTION BOX ASSY.	1	INCLUDES ITEMS W/*
21*#	78980604	CAPACITOR, 440V, 60UF	1	
22*#	95053	TERMINAL BLOCK, 3 POLE	1	
23*#	7292670A	GROUNDING LEAD ASSEMBLY	1	
24*#	84686801	DECAL, GROUND SYMBOL	1	
25*#	76510402	CAPACITOR CLAMP	2	
26*#	80106617	WASHER, LOCK EXTERNAL TOOTH 3/8	1	
27#	72063501	POT COVER	1	
28#	80102804	SCREW, SLOTTED PAN HD. 1/4- 20 X 5/8 ZN	3	
29#	80106505	WASHER, SPLIT LOCK 1/4	3	
30V	74489101	NAMEPLATE	1	
31#	72386001	CONNECTION BOX BASE	1	
32#	A65856BX	CONNECTION BOX COVER	1	
33#	A7672437	SCREW, HEX WRS. HD. 10- 32 X .50	4	
34#	80111801	SCREW, PAN HD. #10- 32 X .75	2	
35#	80105903	NUT, HEX #10- 32	2	
36#	80106607	WASHER, INTERNAL LOCK TOOTH #10	2	
37#	80100003	SCREW, HEX HD. CAP 1/4- 20 X 3/4	2	
38#	80106005	NUT, HEX 1/4- 20	2	
39#	80106505	WASHER, SPLIT LOCK 1/4	2	
40#	80104201	SCREW, HEX SOC. HD CAP 3/8- 16 X 1/2	3	
41#	80106424	WASHER, FLAT 3/8	2	
42#	72582501	DIODE, STUD MOUNTED IN1190R	1	
43#	76167001	SURGE SUPPRESSOR, 80 K OHM.	1	
44#	80111811	SCREW, PAN HD. #10- 32 X 0.38	1	
45	29399	GENERATOR MARATHON MODEL 332	1	INCLUDES ITEMS W/#

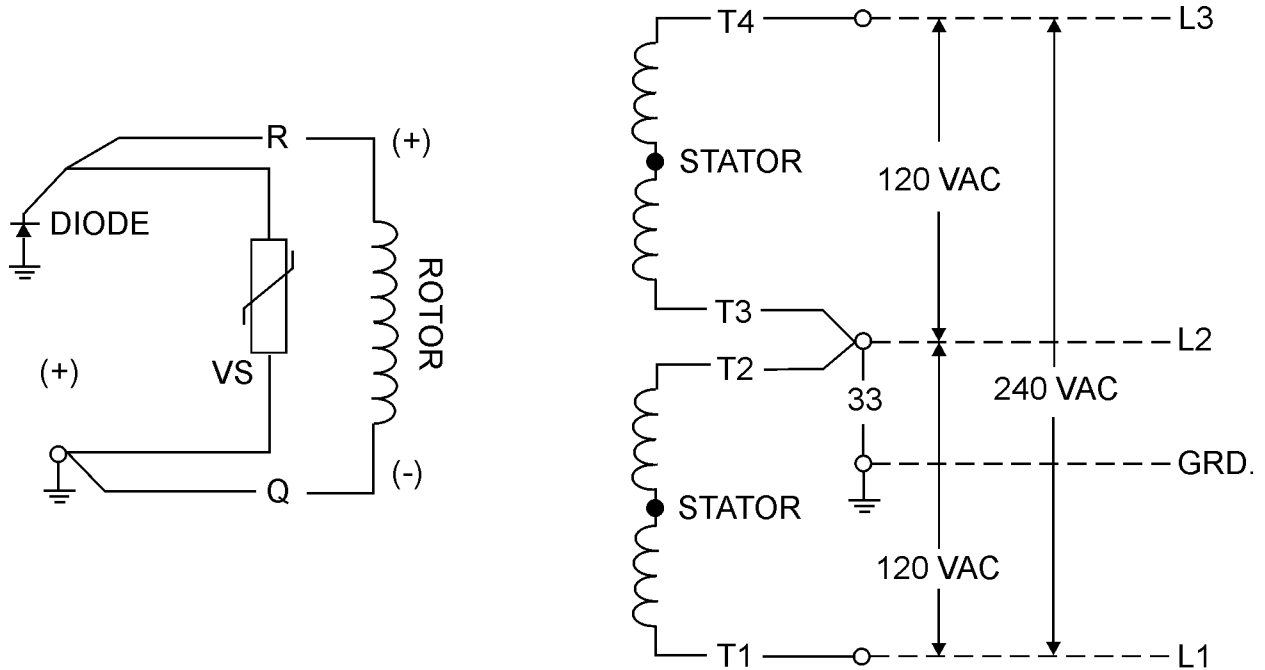
KD1800/KD6 — CONTROL BOX WIRING DIAGRAM

Control Box Wiring Diagram

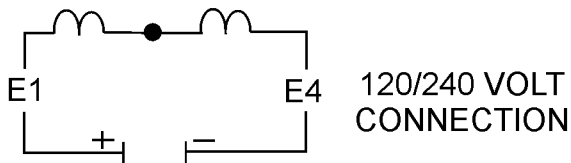


KD1800/KD6 — GENERATOR WIRING DIAGRAM

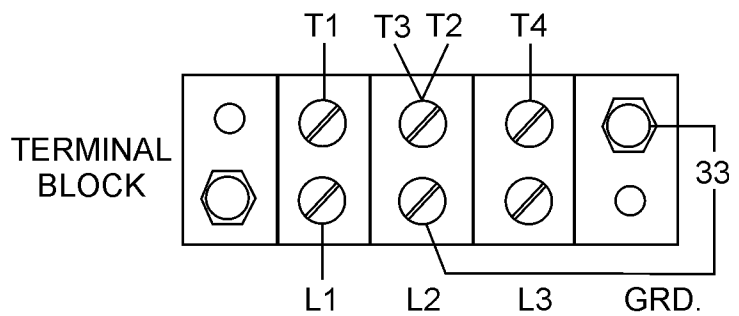
Generator Wiring Diagram



CAPACITOR EXCITATION COILS



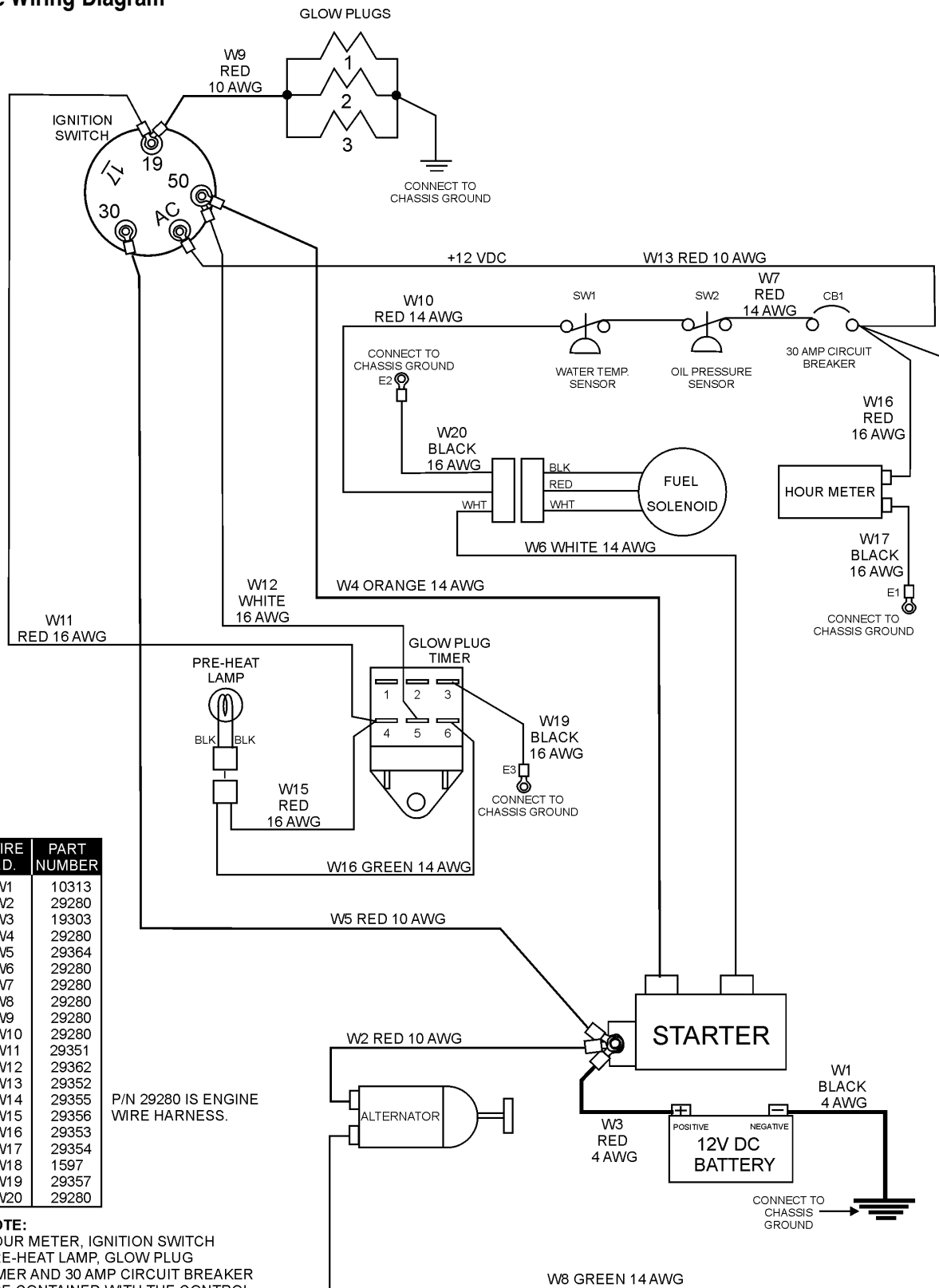
CAPACITOR C1
60 MICROFARAD
480 VDC



SINGLE PHASE
SINGLE CAPACITOR
120, 120/240 V 60 HZ.

KD1800/KD6 — ENGINE WIRING DIAGRAM

Engine Wiring Diagram



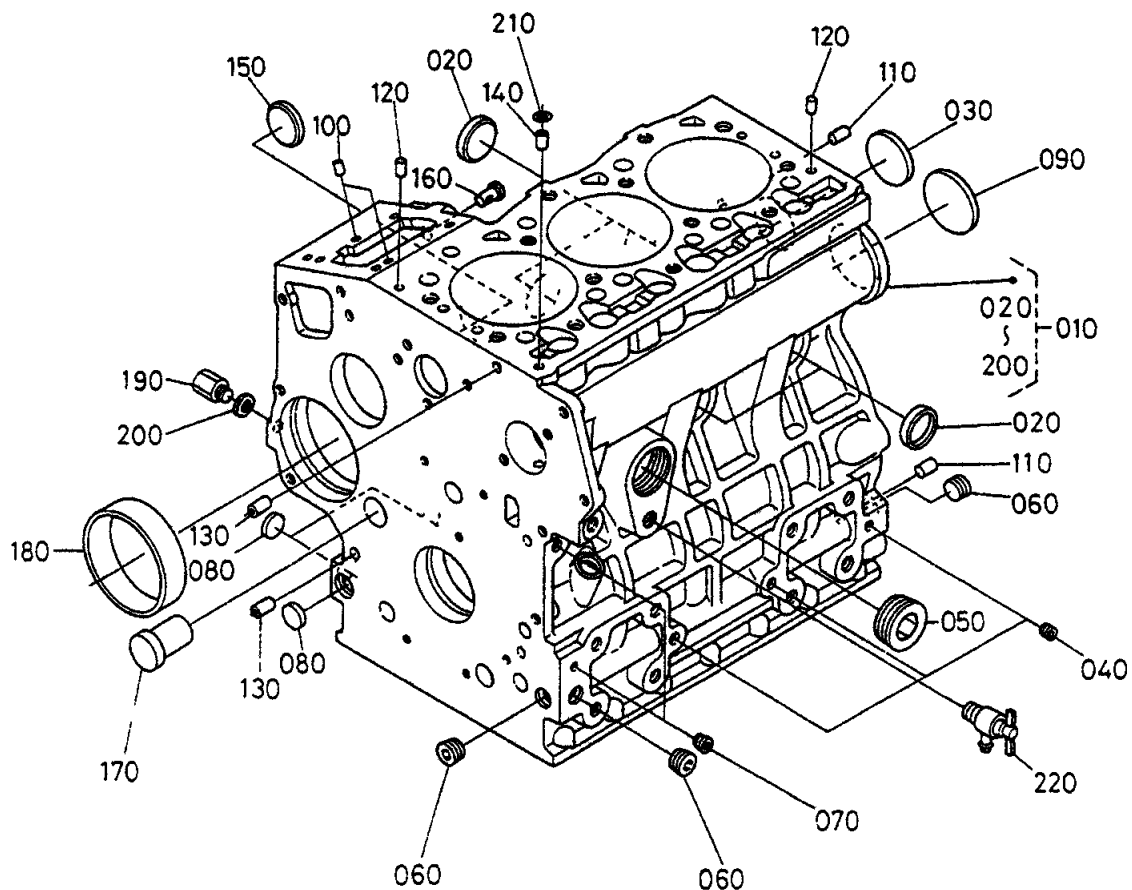
WIRE I.D.	PART NUMBER
W1	10313
W2	29280
W3	19303
W4	29280
W5	29364
W6	29280
W7	29280
W8	29280
W9	29280
W10	29280
W11	29351
W12	29362
W13	29352
W14	29355
W15	29356
W16	29353
W17	29354
W18	1597
W19	29357
W20	29280

P/N 29280 IS ENGINE WIRE HARNESS.

NOTE:
 HOUR METER, IGNITION SWITCH
 PRE-HEAT LAMP, GLOW PLUG
 TIMER AND 30 AMP CIRCUIT BREAKER
 ARE CONTAINED WITH THE CONTROL
 BOX ASSEMBLY.

KUBOTA D905-EBG2 — CRANKCASE ASSY.

CRANKCASE ASSY.



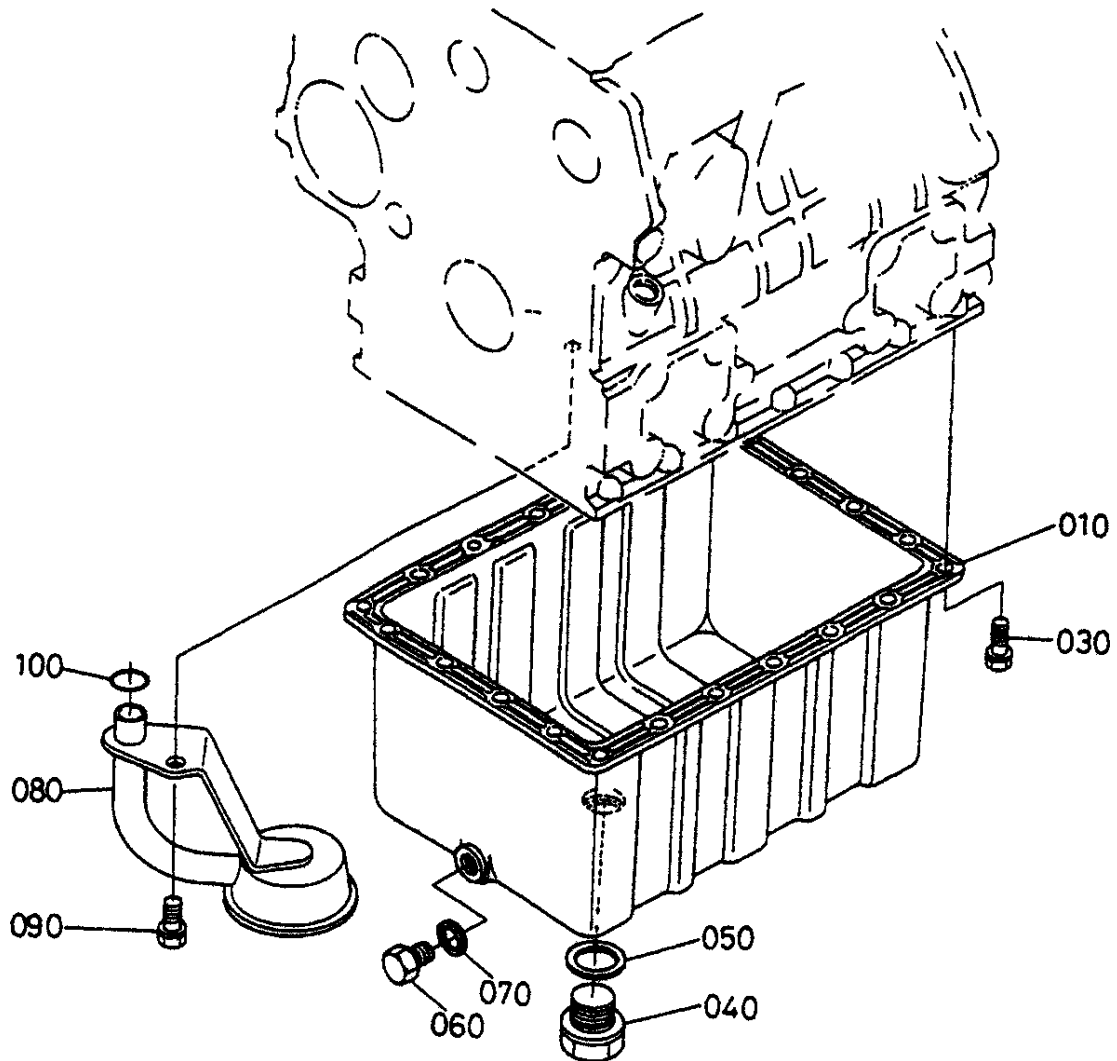
KUBOTA D905-EBG2 — CRANKCASE ASSY.

CRANKCASE ASSY.

<u>NO.</u>	<u>PART NO.</u>	<u>PART NAME</u>	<u>QTY.</u>	<u>REMARKS</u>
010	1622701010	COMPLETE CRANKCASE	1	
020	1545196270	CAP, SEALING	4	
030	1522103490	CAP, SEALING	1	
040	1526196010	PLUG	3	
050	1668396020	PLUG	1	
060	1624196010	PLUG	3	
070	1552196020	PLUG	2	
080	1739196160	PLUG, EXPANSION	3	
090	1627196160	PLUG, EXPANSION	1	
100	0501200508	PIN, STRAIGHT	2	
110	0501200814	PIN, STRAIGHT	2	
120	0501200610	PIN, STRAIGHT	2	
130	1523133960	PIN, PIP E	2	
140	1624133650	PIN, PIPE	1	
150	1624196262	PLUG, FUEL CAMSHAFT	1	
160	1626156280	PIN, START SPRING	1	
170	1628296010	PLUG	1	
180	1627155350	BUSH, GOVERNOR GEAR	1	
190	1522133610	PLUG	1	
200	1502133660	GASKET	1	
210	1522133700	O RING	1	
220	1584173020	ASSEMBLY COCK, DRAIN	1	

KUBOTA D905-EBG2 — OIL PAN ASSY.

OIL PAN ASSY.



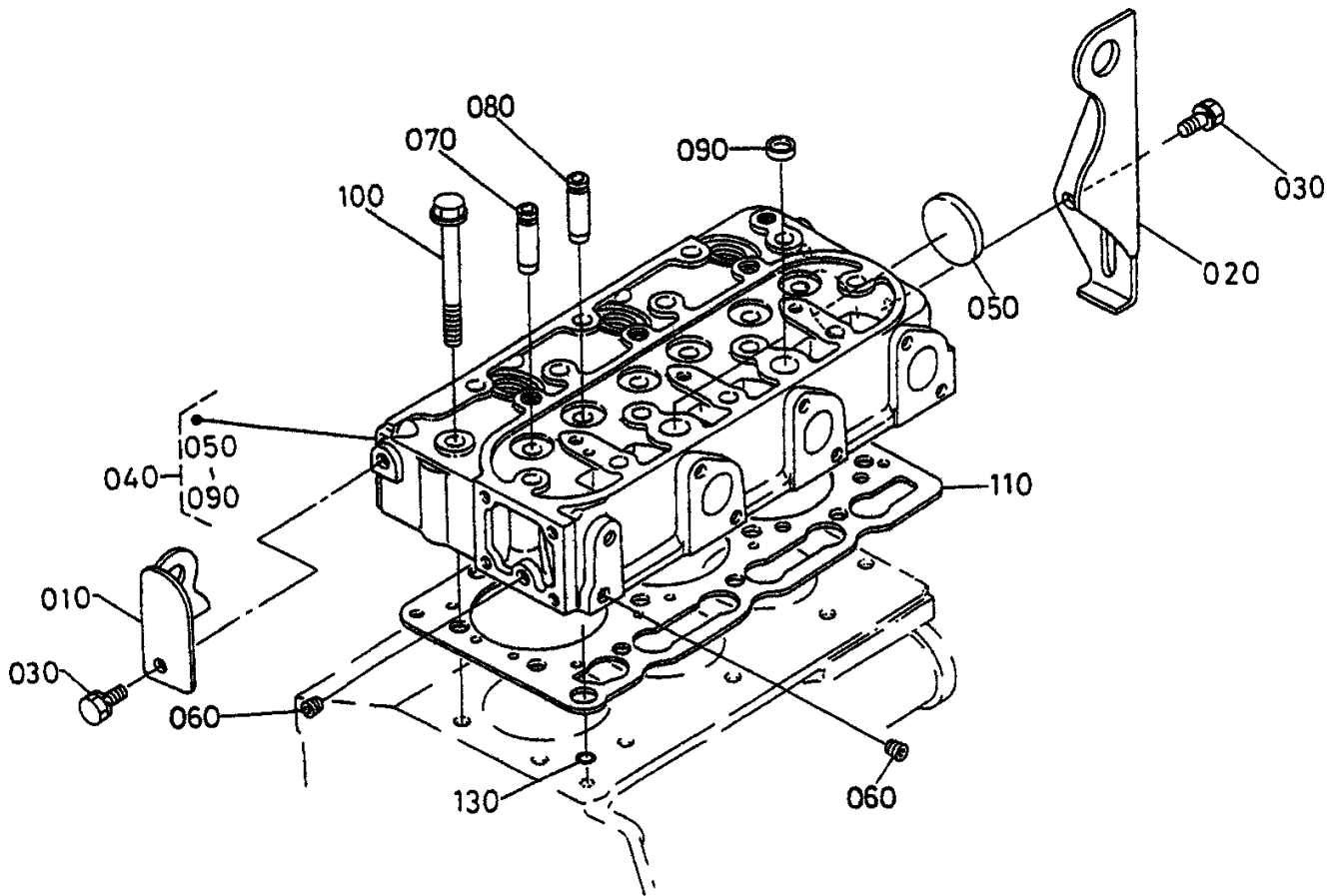
KUBOTA D905-EBG2 — OIL PAN ASSY.

OIL PAN ASSY.

<u>NO.</u>	<u>PART NO.</u>	<u>PART NAME</u>	<u>QTY.</u>	<u>REMARKS</u>
010	1661301500	COMPLETE OIL PAN	1	
030	0102350612	BOLT	22	
040	1654133750	PLUG, DRAIN	1	
050	1545196670	GASKET	1	
060	1522133750	PLUG	1	
070	6C09058960	GASKET	1	
080	1624132114	FILTER, OIL	1	
090	0112350816	BOLT	1	
100	0481400160	O RING	1	

KUBOTA D905-EBG2 — CYLINDER HEAD ASSY.

CYLINDER HEAD ASSY.



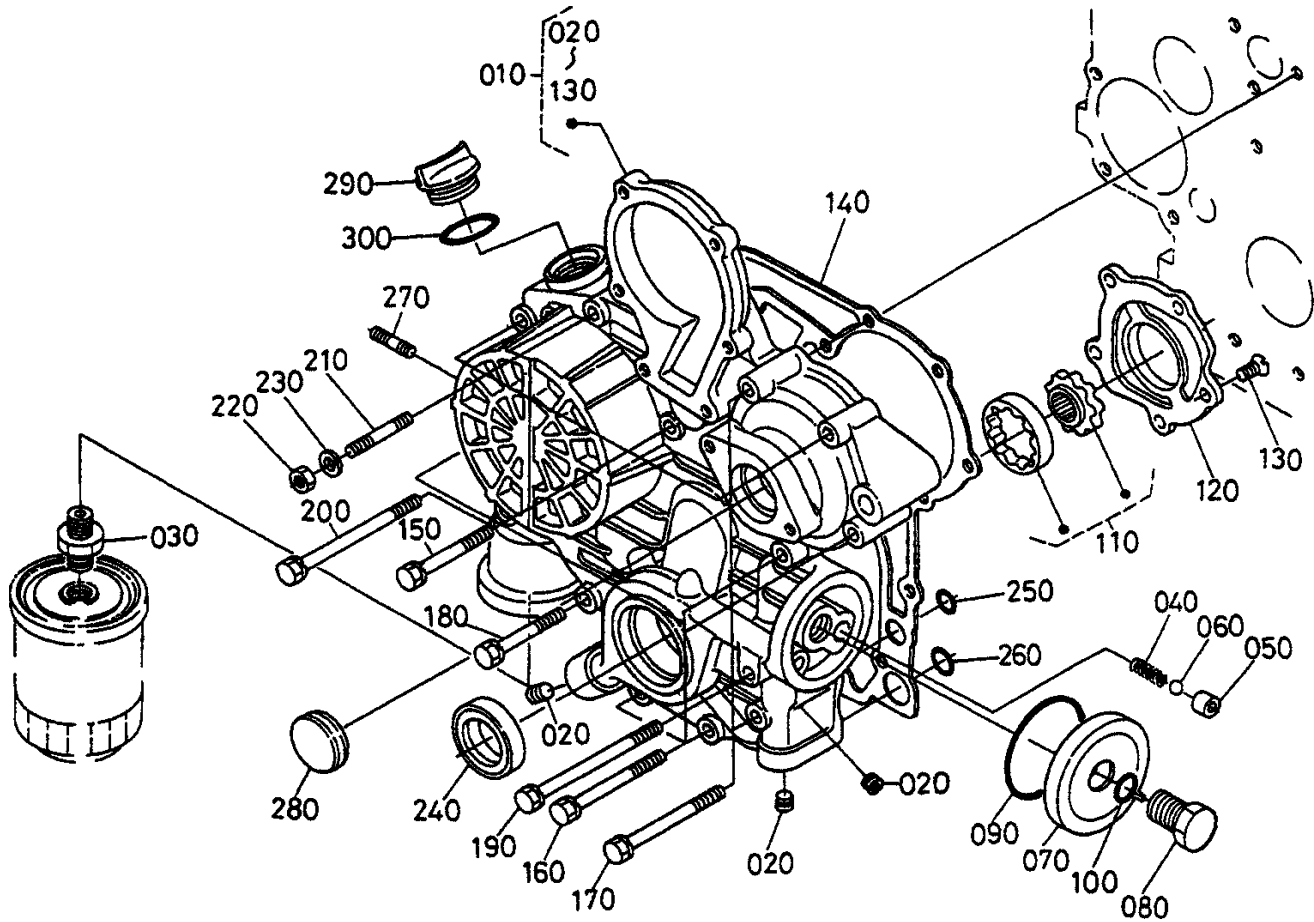
KUBOTA D905-EBG2 — CYLINDER HEAD ASSY.

CYLINDER HEAD ASSY.

<u>NO.</u>	<u>PART NO.</u>	<u>PART NAME</u>	<u>QTY.</u>	<u>REMARKS</u>
010	1624101750	HOOK, ENGINE	1	
020	1624101770	HOOK, ENGINE	1	
030	0112350814	BOLT	2	
040	1602203040	COMPLETE CYLINDER HEAD	1	
050	1532196260	CAP, SEALING	1	
060	1526196010	PLUG	2	
070	1624113540	GUIDE, INLET VALVE	3	
080	1624113560	GUIDE, EXHAUST VALVE	3	
090	1526103370	CAP, SEALING	2	
100	1624103450	BOLT, CYLINDER HEAD	14	
110	1622103310	GASKET, CYLINDER HEAD	1	
130	1522133700	O RING	1	

KUBOTA D905-EBG2 — GEAR CASE ASSY.

GEAR CASE ASSY.



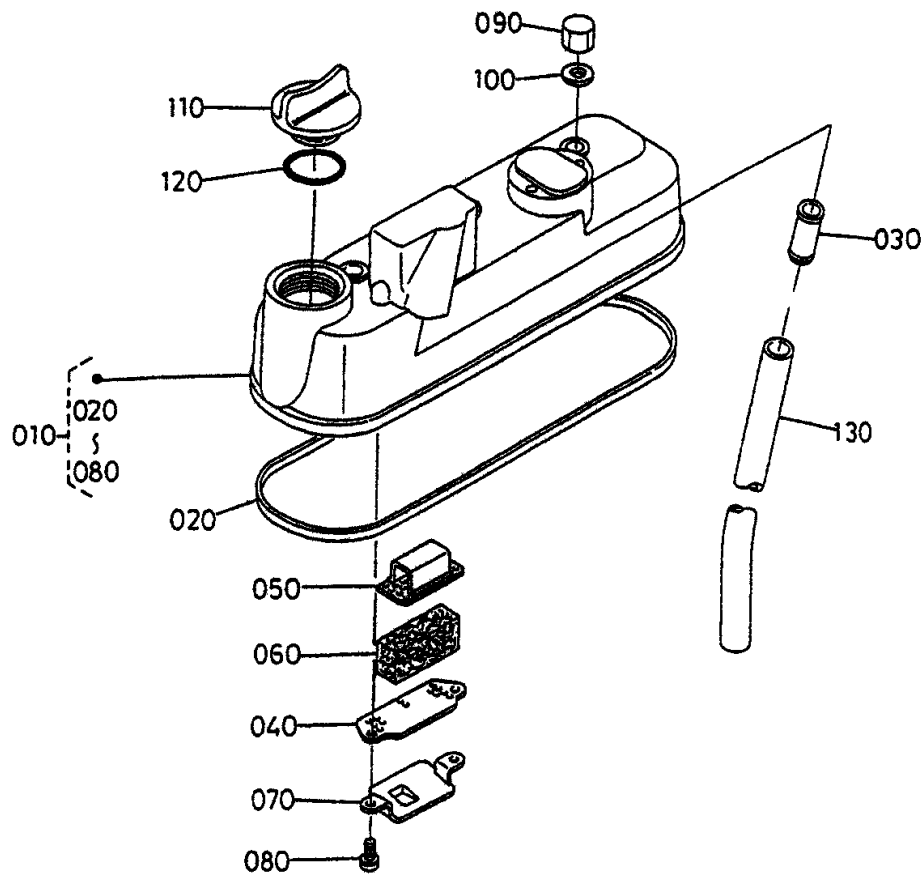
KUBOTA D905-EBG2 — GEAR CASE ASSY.

GEAR CASE ASSY.

<u>NO.</u>	<u>PART NO.</u>	<u>PART NAME</u>	<u>QTY.</u>	<u>REMARKS</u>
010	1625904020	COMPLETE CASE, GEAR	1	
020	1624196020	PLUG	5	
030	1524132290	JOINT, PIPE	1	
040	1624136950	SPRING	1	
050	1624136930	SEAT, VALVE	1	
060	0771500201	BALL	1	
070	1625932882	COVER	1	
080	1625932900	BOLT	1	
090	0481450600	O RING	1	
100	0481400150	O RING	1	
110	1624135070	ASSEMBLY ROTOR, OIL PUMP	1	
120	1625935132	COVER, OIL PUMP	1	
130	1624193120	SCREW, CSK- HD	5	
140	1626404130	GASKET, GEAR CASE	1	
150	0102350645	BOLT	3	
160	0102360650	BOLT	4	
170	0102350655	BOLT	2	
180	1584191040	BOLT	1	
190	1624191040	BOLT	2	
200	1625991040	BOLT	1	
210	1624591530	STUD	1	
220	0205650060	NUT	1	
230	0451250060	WASHER, SPRING	1	
240	1625904210	SEAL, OIL	1	
250	0481406100	ORING	2	
260	0481400150	O RING	2	
270	1624591540	STUD	2	
280	1626483342	COVER, GEAR CASE	1	
290	1585233140	PLUG, OIL FILLER	1	
300	0481450300	O RING	1	

KUBOTA D905-EBG2 — GEAR CASE ASSY.

HEAD COVER ASSY.



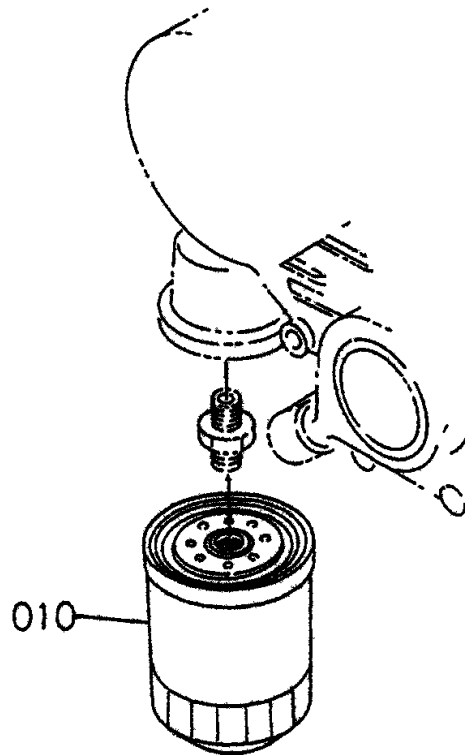
KUBOTA D905-EBG2 — GEAR CASE ASSY.

HEAD COVER ASSY.

<u>NO.</u>	<u>PART NO.</u>	<u>PART NAME</u>	<u>QTY.</u>	<u>REMARKS</u>
010	1626114503	ASSEMBLY COVER, CYLINDER HEAD	1	
020	1626114520	GASKET, HEAD COVER	1	
030	1624105550	JOINT, BREATHER PIPE	1	
040	1624105140	PLATE, B/THER ELEMENT	1	
050	1624105150	PLATE, B/THER ELEMENT	1	
060	1624105670	ELEMENT, BREATHER	1	
070	1624105370	OIL SHIELD, BREATHER	1	
080	0302450510	SCREW, WITH WASHER	2	
090	1595292330	NUT, CAP	3	
100	1595196660	GASKET	3	
110	1585233140	PLUG, OIL FILLER	1	
120	0481450300	O RING	1	
130	1624105510	PIPE, BREATHER	1	

KUBOTA D905-EBG2 — OIL FILTER ASSY.

OIL FILTER ASSY.



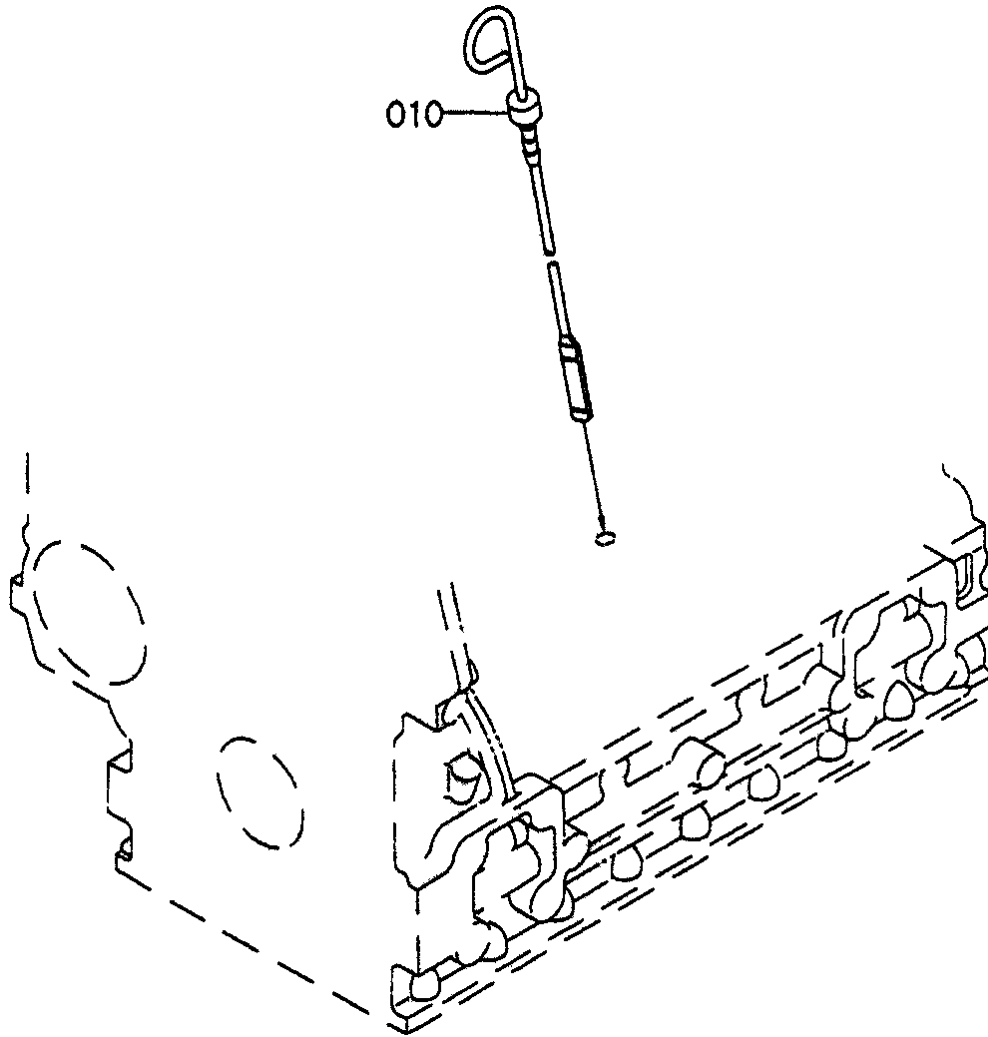
KUBOTA D905-EBG2 — OIL FILTER ASSY.

OIL FILTER ASSY.

<u>NO.</u>	<u>PART NO.</u>	<u>PART NAME</u>	<u>QTY.</u>	<u>REMARKS</u>
010	1627132092	ASSEMBLY CARTRIDGE, OIL	1	

KUBOTA D905-EBG2 — DIPSTICK AND GUIDE ASSY.

DIPSTICK AND GUIDE ASSY.

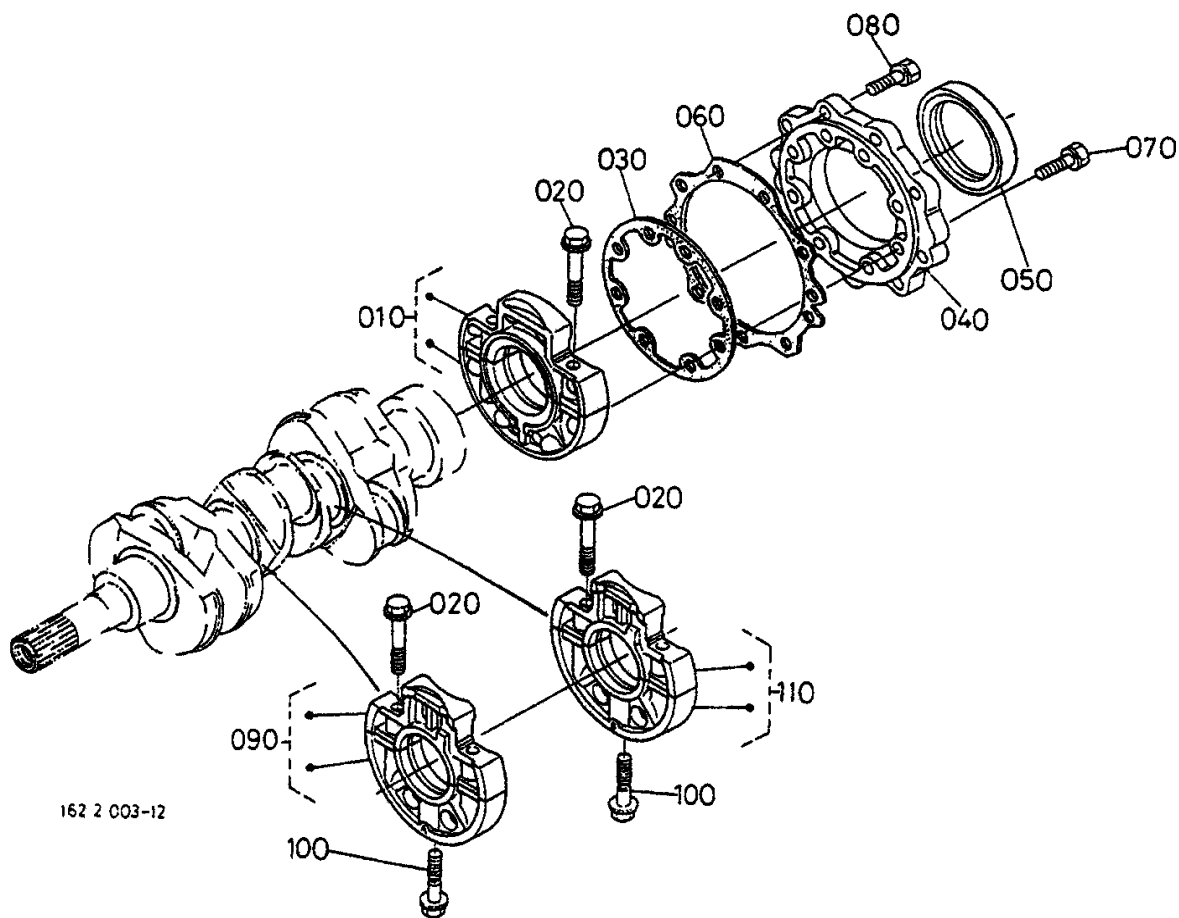


DIPSTICK AND GUIDE ASSY.

<u>NO.</u>	<u>PART NO.</u>	<u>PART NAME</u>	<u>QTY.</u>	<u>REMARKS</u>
010	1625936410	GAUGE, OIL	1	

KUBOTA D905-EBG2 — MAIN BEARING CASE ASSY.

MAIN BEARING CASE ASSY.



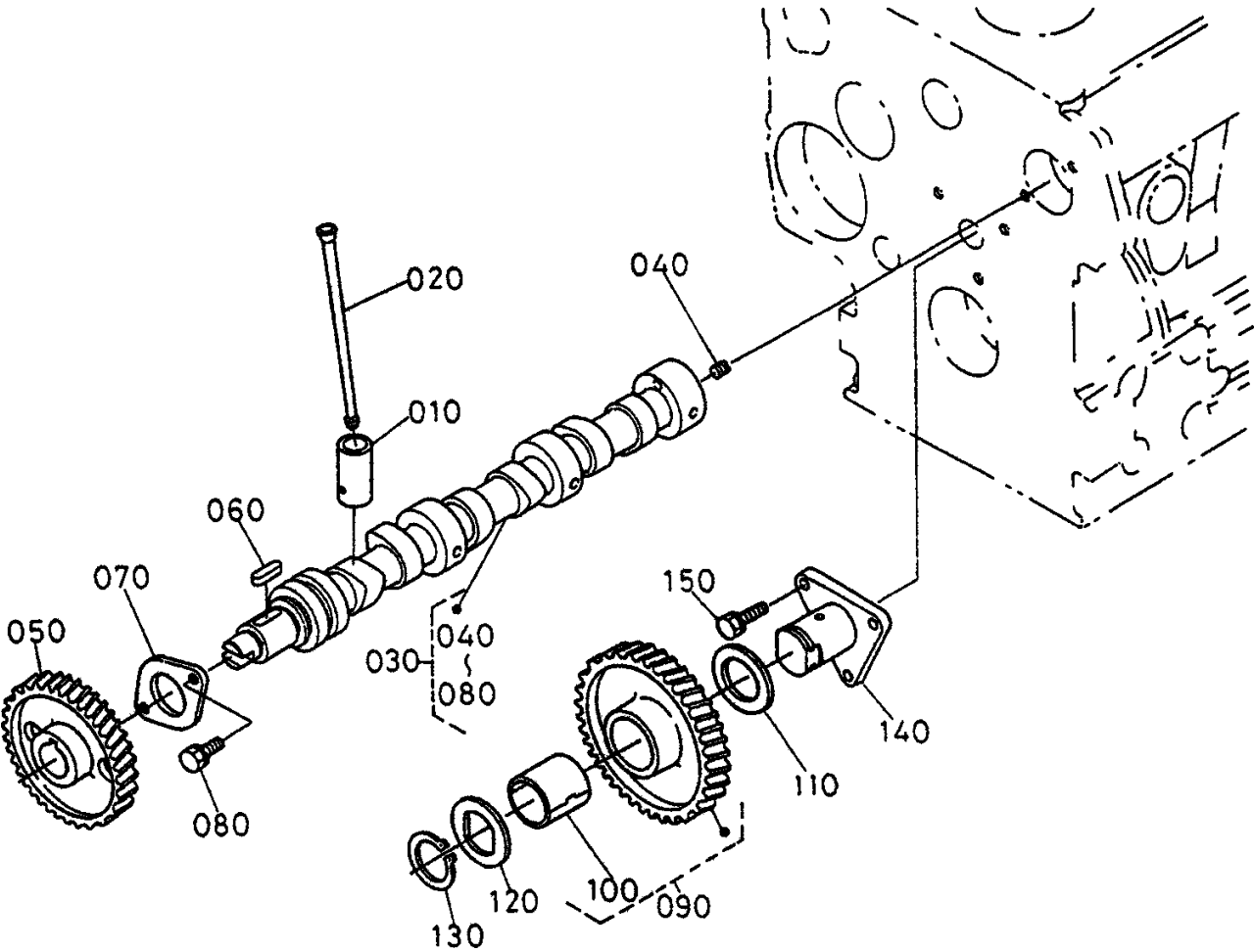
KUBOTA D905-EBG2 — MAIN BEARING CASE ASSY.

MAIN BEARING CASE ASSY.

<u>NO.</u>	<u>PART NO.</u>	<u>PART NAME</u>	<u>QTY.</u>	<u>REMARKS</u>
010	1624104092	ASSEMBLY CASE, MAIN BRG.	1	
020	1624104540	BOLT, BEARING CASE	6	
030	1626404360	GASKET, BRG. CASE	1	
040	1624104813	COVER, BEARLING CASE	1	
050	1624104460	SEAL, OIL	1	
060	1626404820	GASKET	1	
070	0102350625	BOLT	8	
080	0102350620	BOLT	9	
090	1627104040	ASSEMBLY CASE, MAIN BRG.	1	
100	1624104560	BOLT, BEARING CASE	2	
110	1627104050	ASSEMBLY CASE, MAIN BRG.	1	

KUBOTA D905-EBG2 — CAMSHAFT AND IDLER GEAR SHAFT ASSY.

CAMSHAFT AND IDLE GEAR SHAFT ASSY.



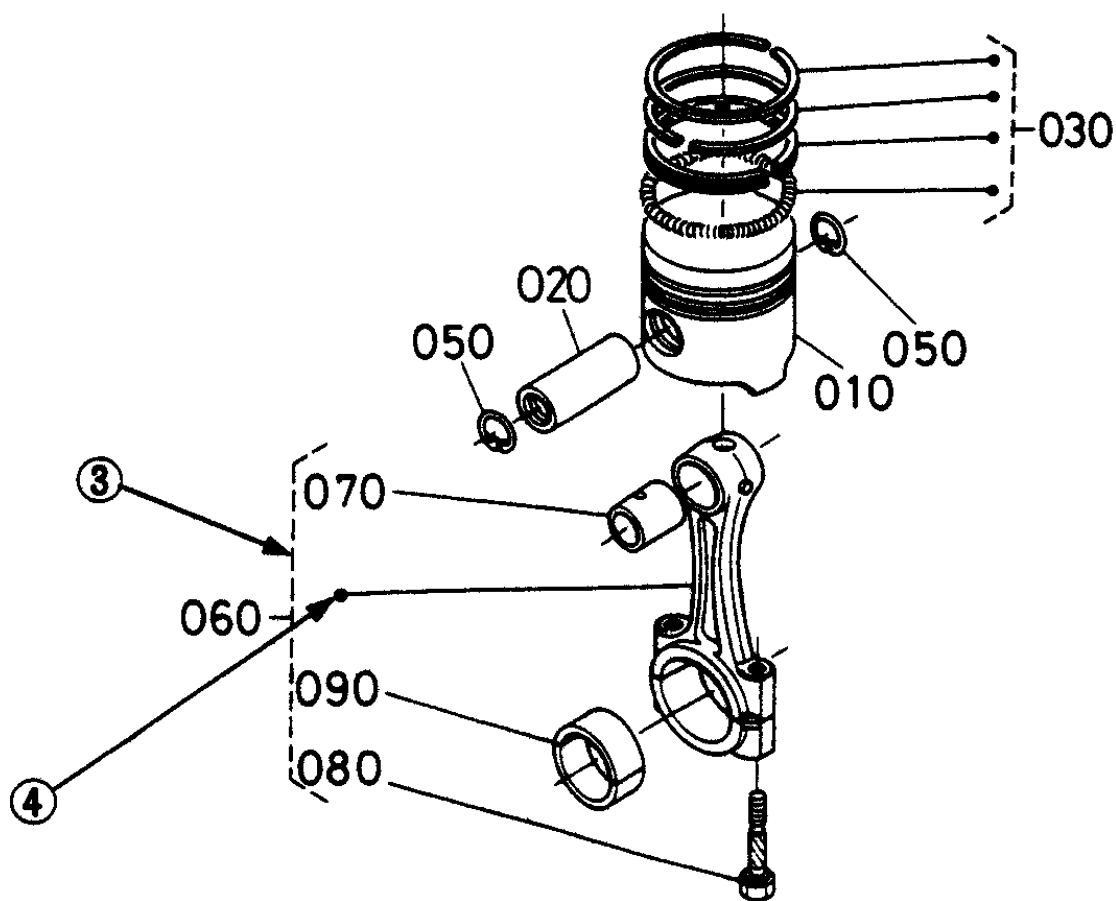
KUBOTA D905-EBG2 — CAMSHAFT AND IDLER GEAR SHAFT ASSY.

CAMSHAFT AND IDLE GEAR SHAFT ASSY.

<u>NO.</u>	<u>PART NO.</u>	<u>PART NAME</u>	<u>QTY.</u>	<u>REMARKS</u>
010	1626115550	TAPPET	6	
020	1624115110	PUSH ROD	6	
030	1626116010	ASSEMBLY CAMSHAFT	1	
040	1552193610	SCREW, SET	1	
050	1624116510	GEAR, CAM	1	
060	0571200518	KEY, FEATHER	1	
070	1624116270	STOPPER, CAMSHAFT	1	
080	0102350614	BOLT	2	
090	1627124010	COMPLETE GEAR, IDLE	1	
100	1627124980	BUSH, IDLE GEAR	1	
110	1624124360	COLLAR, IDLE GEAR	1	
120	1624124370	COLLAR, IDLE GEAR	1	
130	1624124320	CIR CLIP, IDLE GEAR	1	
140	1624124250	SHAFT, IDLE GEAR	1	
150	0102350616	BOLT	3	

KUBOTA D905-EBG2 — PISTON AND CRANKSHAFT ASSY.

PISTON AND CRANKSHAFT ASSY.



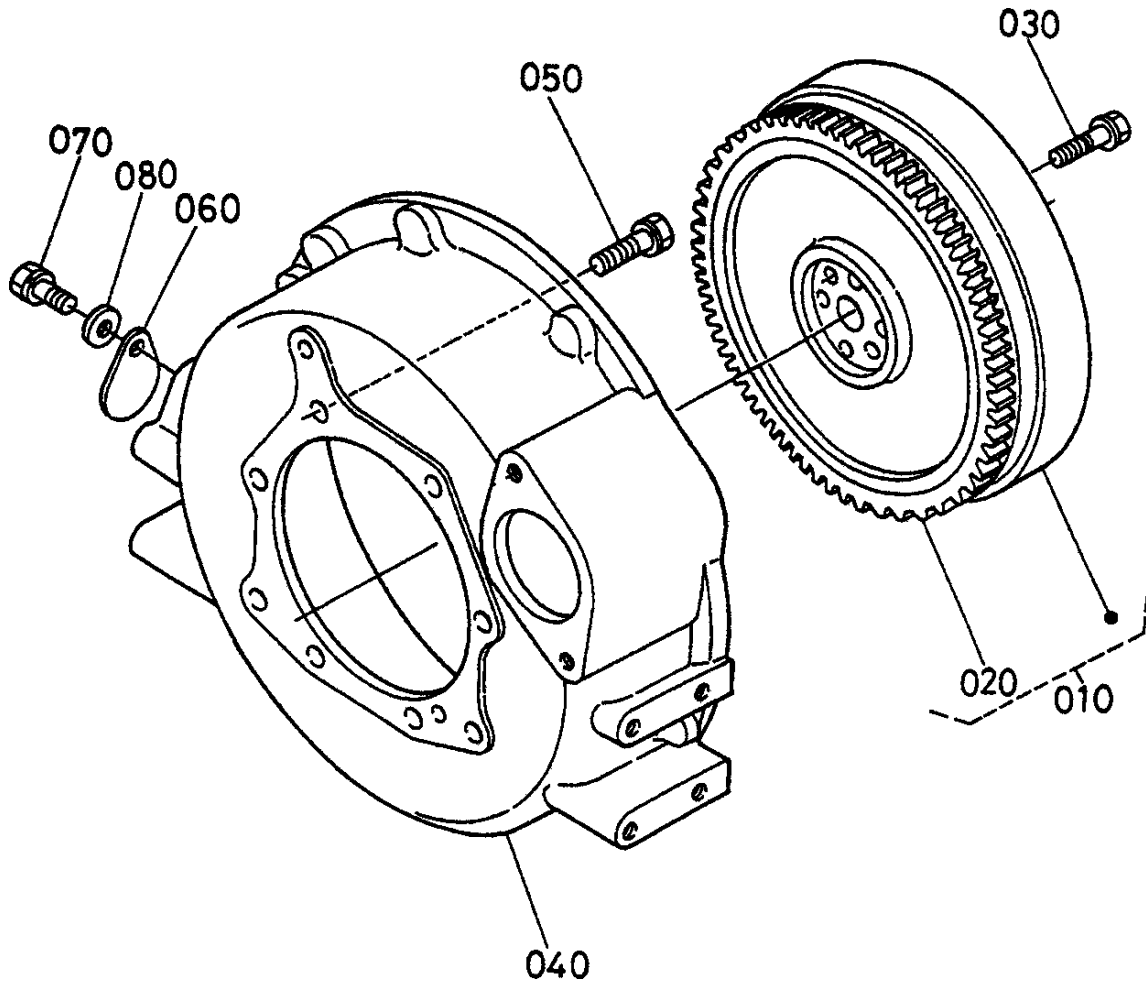
KUBOTA D905-EBG2 — PISTON AND CRANKSHAFT ASSY.

PISTON AND CRANKSHAFT ASSY.

<u>NO.</u>	<u>PART NO.</u>	<u>PART NAME</u>	<u>QTY.</u>	<u>REMARKS</u>
010	1622421110	PISTON	3	STD.
010	1622421910	PISTON	3	+0. 50MM
020	1590121050	ASSEMBLY PISTON RING	3	STD.
020	1590121090	ASSEMBLY PISTON RING	3	+0. 50MM
030	1624121310	PIN, PISTON	3	
040	1624121330	CIR CLIP, PISTON PIN	6	
050	1624122012	ASSEMBLY ROD, CONNECTING	3	
060	1624121980	BUSH, PISTON PIN	3	
070	1624122140	BOLT, CONNECTING ROD	6	
080	1624122310	METAL, CRANKPIN	3	STD. SET
080	1624122970	METAL, CRANKPIN	3	- 0. 20MM SET
080	1624122980	METAL, CRANKPIN	3	- 0. 40MM SET
090	1623523013	COMPLETE CRANKSHAFT	1	
100	0771500401	BALL	3	
110	1624124110	GEAR, CRANK	1	
120	1627195230	KEY	1	
130	1624135630	GEAR, OIL PUMP DRIVE	1	
140	1624123280	SLEEVE, CRANKSHAFT	1	
150	1624123250	COLLAR, CRANKSHAFT	1	
160	0481410280	O RING	1	
170	1624123470	METAL, CRANKSHAFT	1	STD.
170	1624123910	METAL, CRANKSHAFT	1	- 0. 20MM
170	1624123920	METAL, CRANKSHAFT	1	- 0. 40MM
180	1624123480	METAL, CRANKSHAFT	2	STD. SET
180	1624123930	METAL, CRANKSHAFT	2	- 0. 20MM SET
180	1624123940	METAL, CRANKSHAFT	2	- 0. 40MM SET
190	1629223490	METAL, CRANKSHAFT	1	STD. SET
190	1624123860	METAL, CRANKSHAFT	1	- 0. 20MM SET
190	1624123870	METAL, CRANKSHAFT	1	- 0. 40MM SET
200	1552123530	METAL, SIDE	2	STD.
200	1552123950	METAL, SIDE	2	+0. 20MM
200	1552123960	METAL, SIDE	2	+0. 40MM
210	1920223540	METAL, SIDE	2	STD.
210	1920223970	METAL, SIDE	2	+0. 20MM
210	1920223980	METAL, SIDE	2	+0. 40MM

KUBOTA D905-EBG2 — FLYWHEEL ASSY.

FLYWHEEL ASSY.



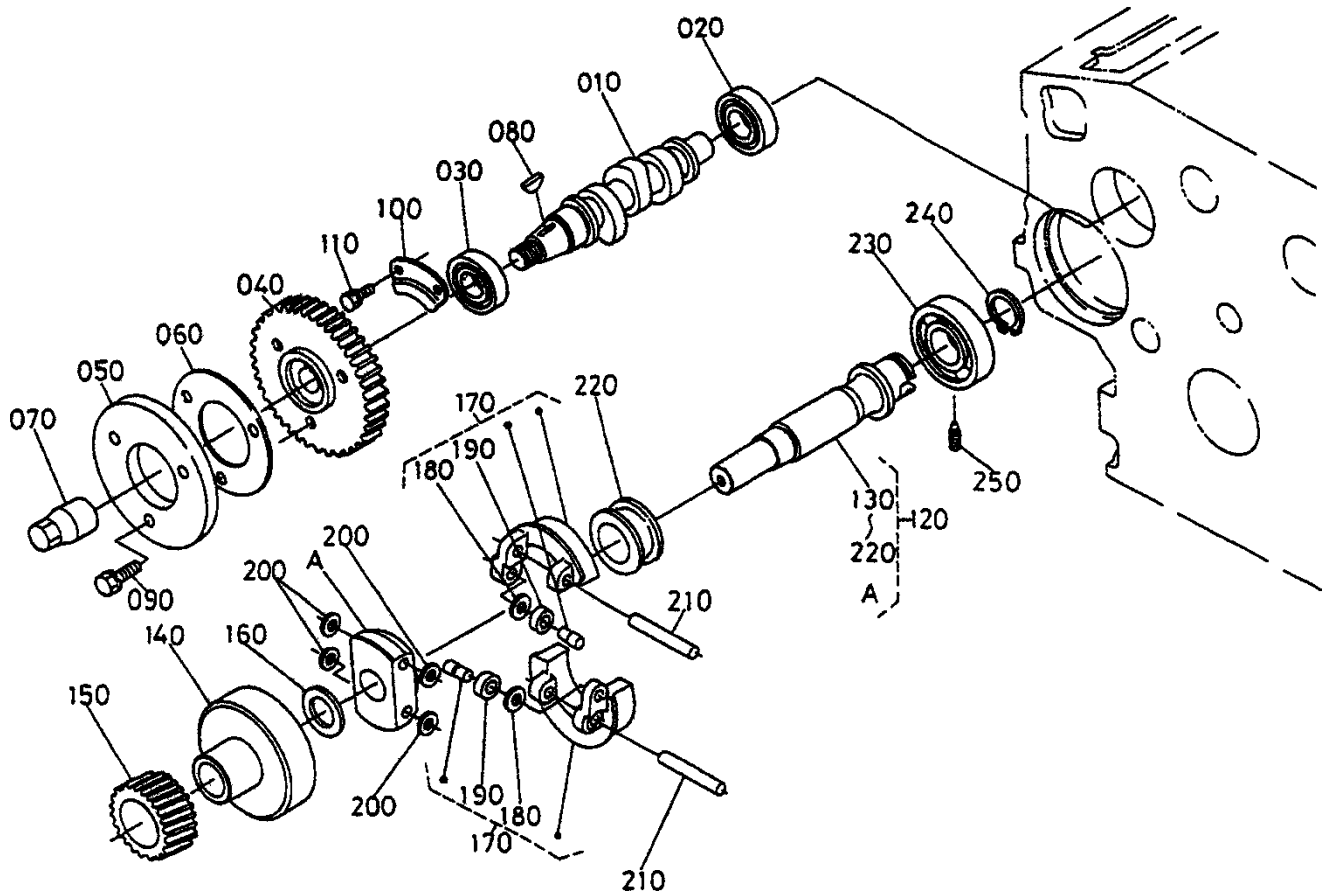
KUBOTA D905-EBG2 — FLYWHEEL ASSY.

FLYWHEEL ASSY.

<u>NO.</u>	<u>PART NO.</u>	<u>PART NAME</u>	<u>QTY.</u>	<u>REMARKS</u>
010	1668325014	COMPLETE FLYWHEEL	1	
020	1626163820	GEAR, RING	1	
030	1624125160	BOLT, FLYWHEEL	6	
040	1668304610	HOUSING, FLYWHEEL	1	
050	1526191190	BOLT	8	
060	3122014170	COVER	1	
070	0112350814	BOLT	1	
080	0401350080	WASHER, PLAIN	1	

KUBOTA D905-EBG2 — FUEL CAMSHAFT AND GOVERNOR SHAFT ASSY.

FUEL CAMSHAFT AND GOVERNOR SHAFT ASSY.



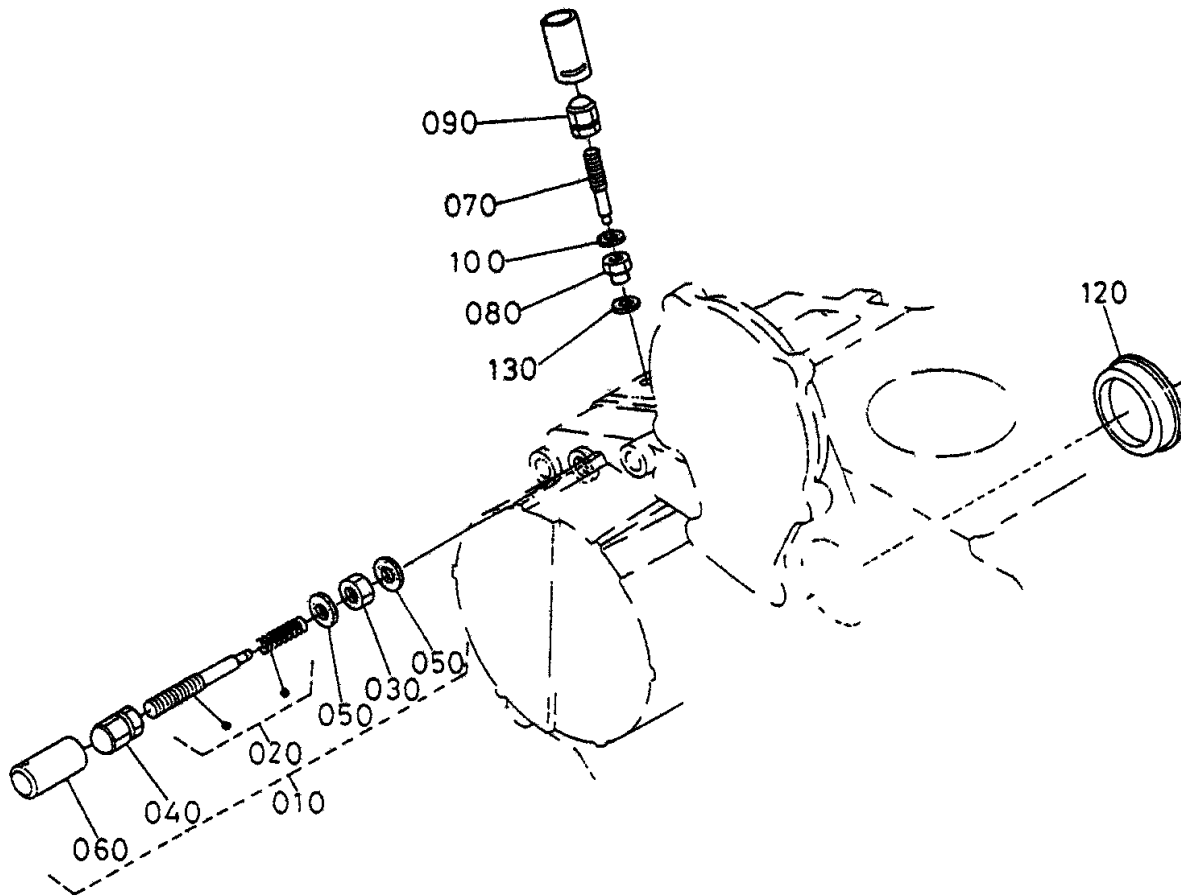
KUBOTA D905-EBG2 — FUEL CAMSHAFT AND GOVERNOR SHAFT ASSY.

FUEL CAMSHAFT AND GOVERNOR SHAFT ASSY.

<u>NO.</u>	<u>PART NO.</u>	<u>PART NAME</u>	<u>QTY.</u>	<u>REMARKS</u>
010	1602016170	CAMSHAFT, FUEL	1	
020	0810306202	BEARING, BALL	1	
030	0810306204	BEARING, BALL	1	
040	1627251150	GEAR, INJECTION PUMP	1	
050	1624151113	CAM, FUEL	1	
060	1624151190	WASHER	1	
070	1624192330	NUT, CAP	1	
080	1624195230	KEY, WOODRUFF	1	
090	0102350618	BOLT	3	
100	1624116320	STOPPER, FUEL. C/SHAFT	1	
110	0102350612	BOLT	2	
120	1668355010	ASSEMBLY SHAFT, GOVERNOR	1	
130	1668355310	SHAFT, GOVERNOR	1	
140	1669555390	HOLDER, GOVERNOR GEAR	1	
150	1668355320	GEAR, GOVERNOR	1	
160	1668355510	COLLAR, GOVERNOR WEIGHT	1	
170	1668355060	COMP.WEIGHT, GOVERNOR	2	
180	1981855340	WASHER	2	
190	1981855600	BEARING	2	
200	1668355260	WASHER, GOVERNOR WEIGHT	4	
210	1624155260	SHAFT, GOVERNOR WEIGHT	2	
220	1668355450	SLEEVE, GOVERNOR	1	
230	0810206304	BEARING, BALL	1	
240	1668355410	CIR- CLIP, GOVERNOR SHAFT	1	
250	1624155554	SCREW, SET	1	

KUBOTA D905-EBG2 — ENGINE STOP LEVER ASSY.

ENGINE STOP LEVER ASSY.



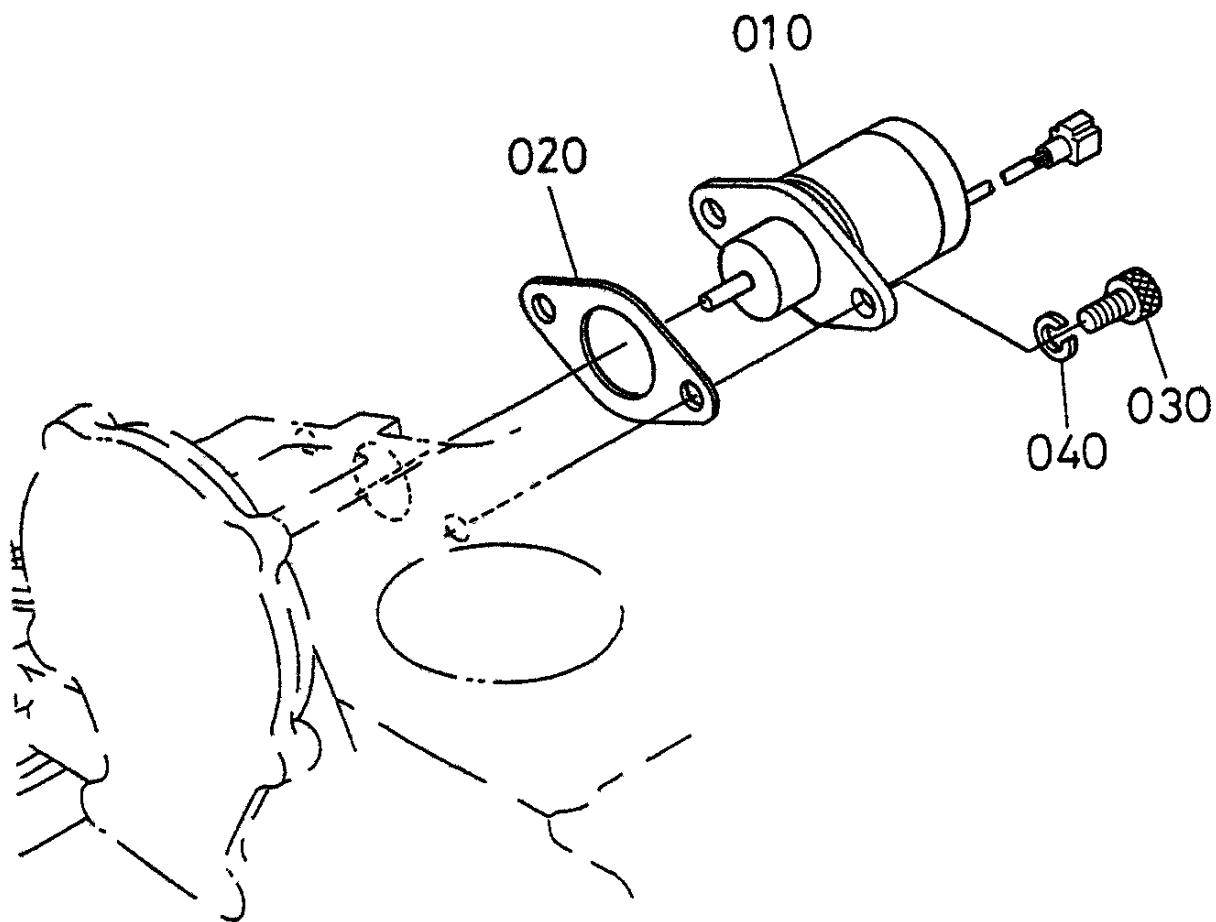
KUBOTA D905-EBG2 — ENGINE STOP LEVER ASSY.

ENGINE STOP LEVER ASSY.

<u>NO.</u>	<u>PART NO.</u>	<u>PART NAME</u>	<u>QTY.</u>	<u>REMARKS</u>
010	1625954090	ASSEMBLY APPARATUS, IDLE	1	
020	1625954102	ASSEMBLY BOLT, ADJUSTING	1	
030	1584192020	NUT	1	
040	1584192330	NUT, CAP	1	
050	1560196650	GASKET	2	
060	1622154420	CAP	1	
070	1624154120	BOLT, ADJUSTING	1	
080	1G03154210	NUT, LOCK	1	
090	1584192330	NUT, CAP	1	
100	1560196650	GASKET	1	
110		BLANK		
120	1626483152	COVER, HYDRAULIC PUMP	1	
130	1G03196650	GASKET	1	

KUBOTA D905-EBG2 — STOP SOLENOID ASSY.

STOP SOLENOID ASSY.



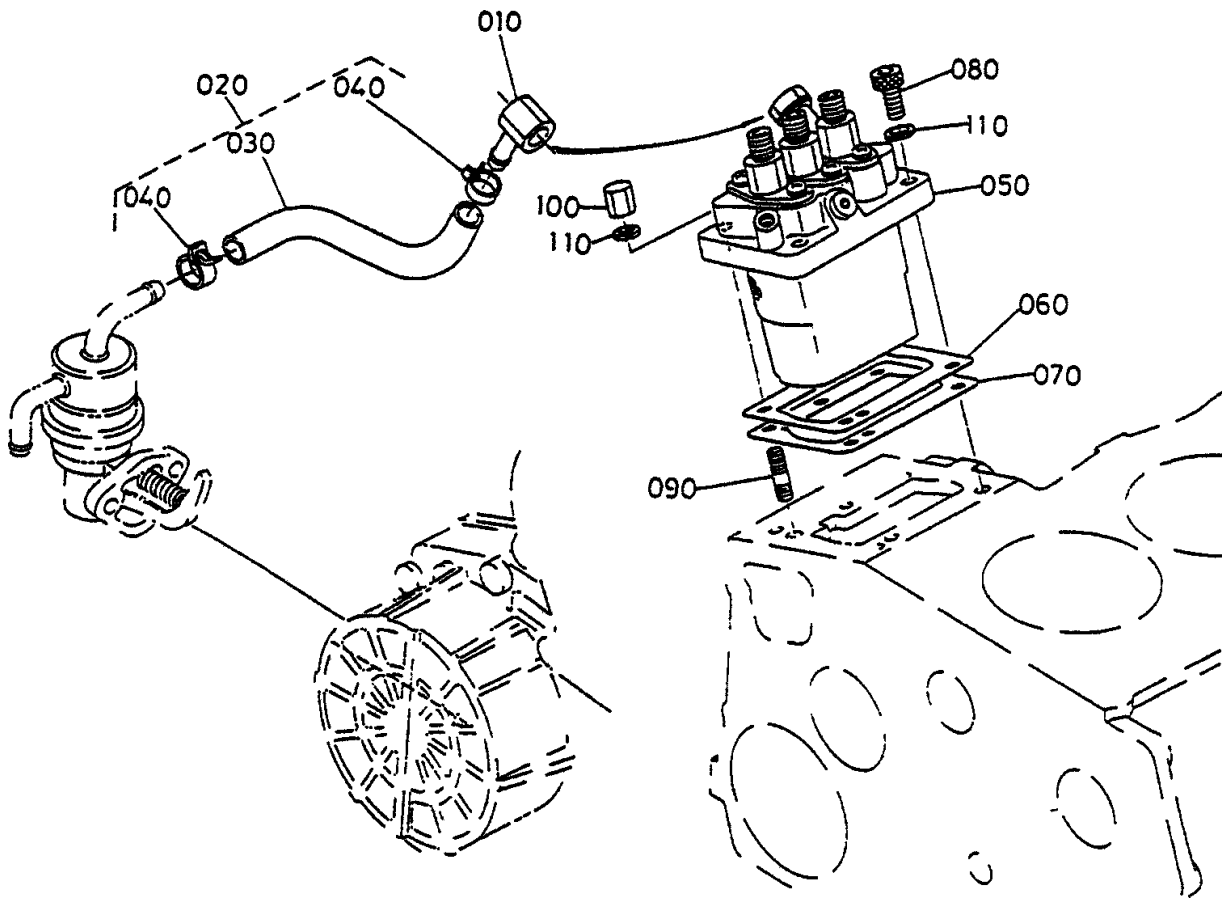
KUBOTA D905-EBG2 — STOP SOLENOID ASSY.

STOP SOLENOID ASSY.

<u>NO.</u>	<u>PART NO.</u>	<u>PART NAME</u>	<u>QTY.</u>	<u>REMARKS</u>
010	1745460010	SOLENOID, STOP	1	
020	1629960150	GASKET	1	
030	0131110614	BOLT, HEX- SOC- HD	2	
040	0451250060	WASHER, SPRING	2	

KUBOTA D905-EBG2 — INJECTION PUMP ASSY.

INJECTION PUMP ASSY.



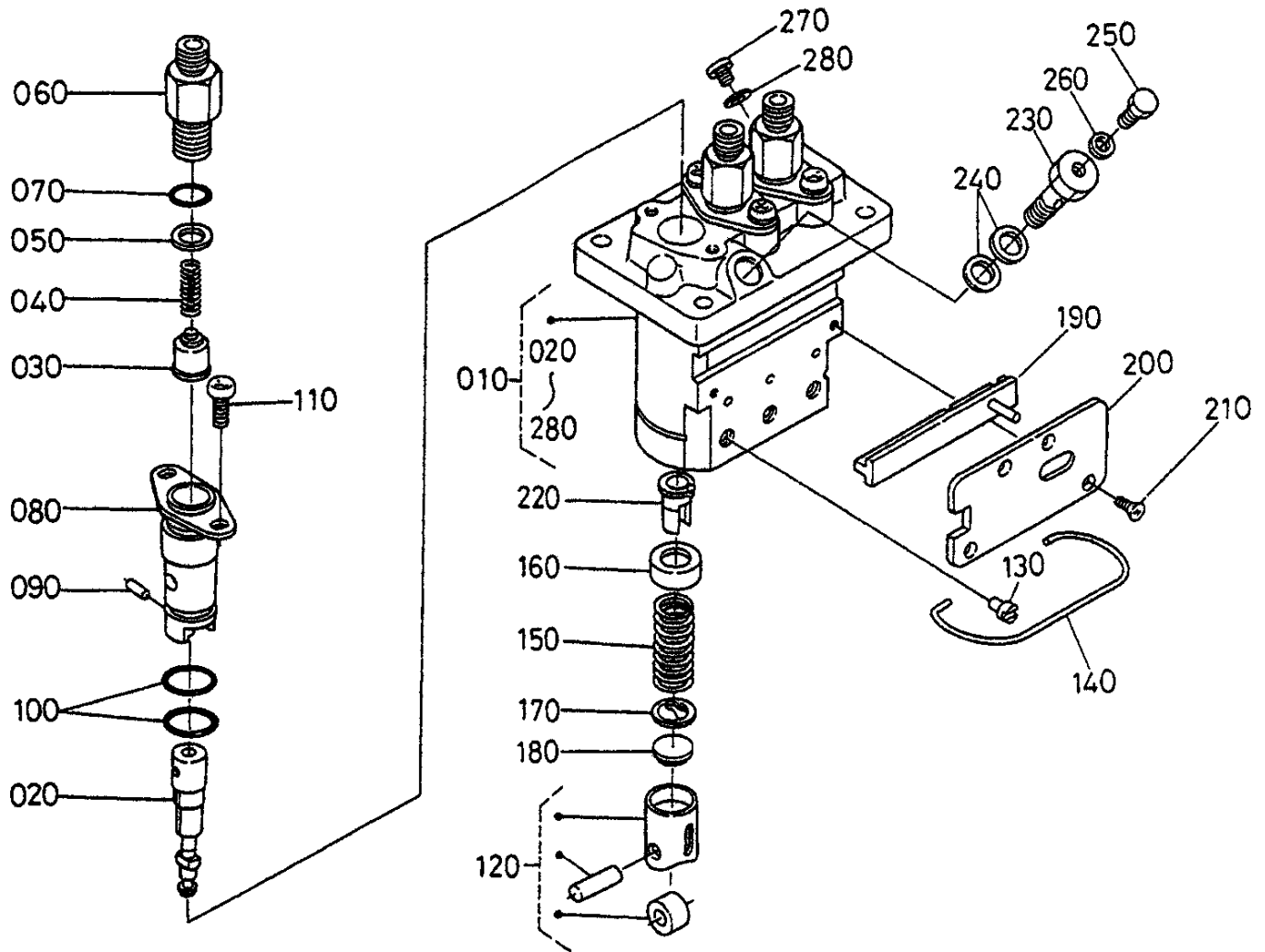
KUBOTA D905-EBG2 — INJECTION PUMP ASSY.

INJECTION PUMP ASSY.

<u>NO.</u>	<u>PART NO.</u>	<u>PART NAME</u>	<u>QTY.</u>	<u>REMARKS</u>
010	1624195690	JOINT, EYE	1	
020	1603242010	ASSEMBLY TUBE, FUEL	1	
030	0966180075	TUBE, FUEL	1	
040	1491142750	CLIP, PIPE	2	
050	1603051010	ASSEMBLY PUMP, INJECTION	1	
060	1600652092	SHIM, INJECTION PUMP	1	0. 20MM
060	1600652112	SHIM, INJECTION PUMP	1	0. 25MM
070	1600652122	SHIM, INJECTION PUMP	1	0. 30MM
080	0131110620	BOLT, HEX- SOC- HD	2	
090	1584191500	STUD	2	
100	1584192320	NUT, CAP	2	
110	0451250060	WASHER, SPRING	4	

KUBOTA D905-EBG2 — INJECTION PUMP (COMPONENT PARTS) ASSY.

INJECTION PUMP (COMPONENT PARTS) ASSY.



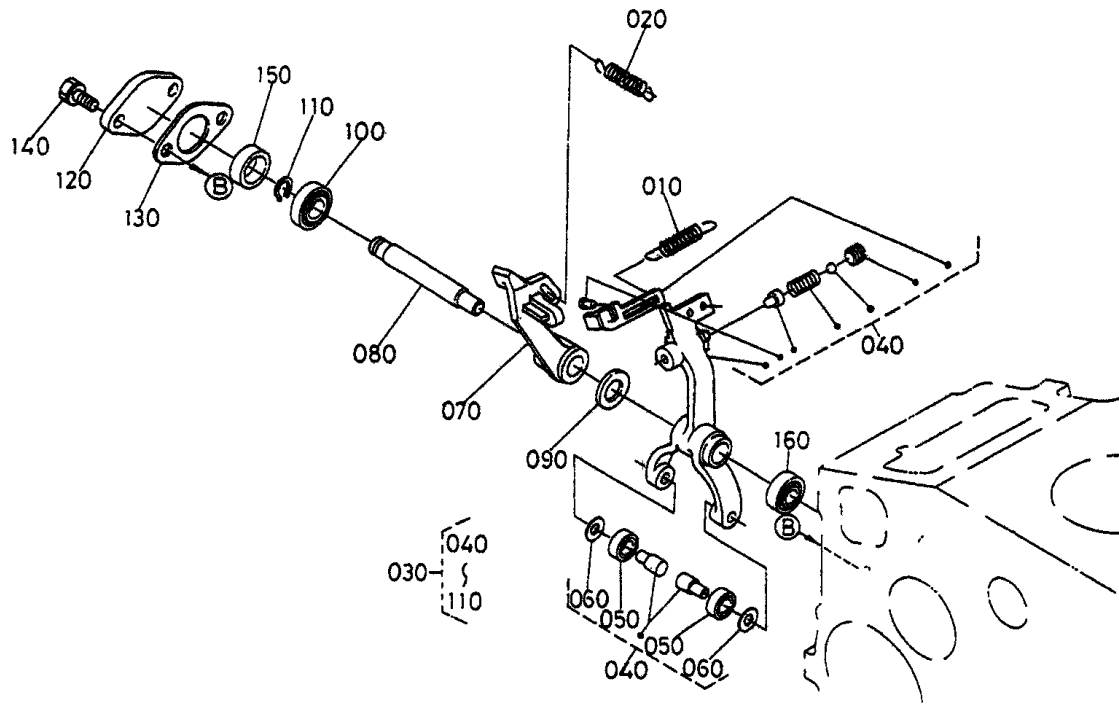
KUBOTA D905-EBG2 — INJECTION PUMP (COMPONENT PARTS) ASSY.

INJECTION PUMP(COMPONENT PARTS) ASSY.

<u>NO.</u>	<u>PART NO.</u>	<u>PART NAME</u>	<u>QTY.</u>	<u>REMARKS</u>
010	1603051010	ASSEMBLY PUMP, INJECTION	1	
020	1603051052	PLUNGER, PUMP	3	
030	1584151030	VALVE, DELIVERY	3	
040	1584151230	SPRING, DELIVERY VALVE	3	
050	1584151240	GASKET, DELIVERY VALVE	3	
060	1627151220	HOLDER, DELIVERY VALVE	3	
070	1584196760	O RING	3	
080	1584151560	FLANGE, SLEEVE	3	
090	1584194570	PIN, JOINT	3	
100	1584151200	O RING	6	
110	1586291430	SCREW	6	
120	1584151070	ASSEMBLY TAPPET	3	
130	1584151250	PIN, TAPPET GUIDE	3	
140	1586151430	PIN, CLAMP	1	
150	1584151280	SPRING, PLUNGER	3	
160	1584151270	SEAT, SPRING UPPER	3	
170	1584151290	SEAT, SPRING LOWER	3	
180	1584151490	SHIM	3	
190	1603051060	RACK, CONTROL	1	
200	1603051540	PLATE	1	
210	1584193110	SCREW, CSK- HD	4	
220	1584151380	SLEEVE, CONTROL	3	
230	1603051320	BOLT, JOINT	1	
240	1584196650	GASKET	2	
250	1584151350	SCREW	1	
260	1584196660	GASKET	1	
270	1603096010	PLUG	1	
280	1586196650	GASKET	1	

KUBOTA D905-EBG2 — GOVERNOR ASSY.

GOVERNOR ASSY.



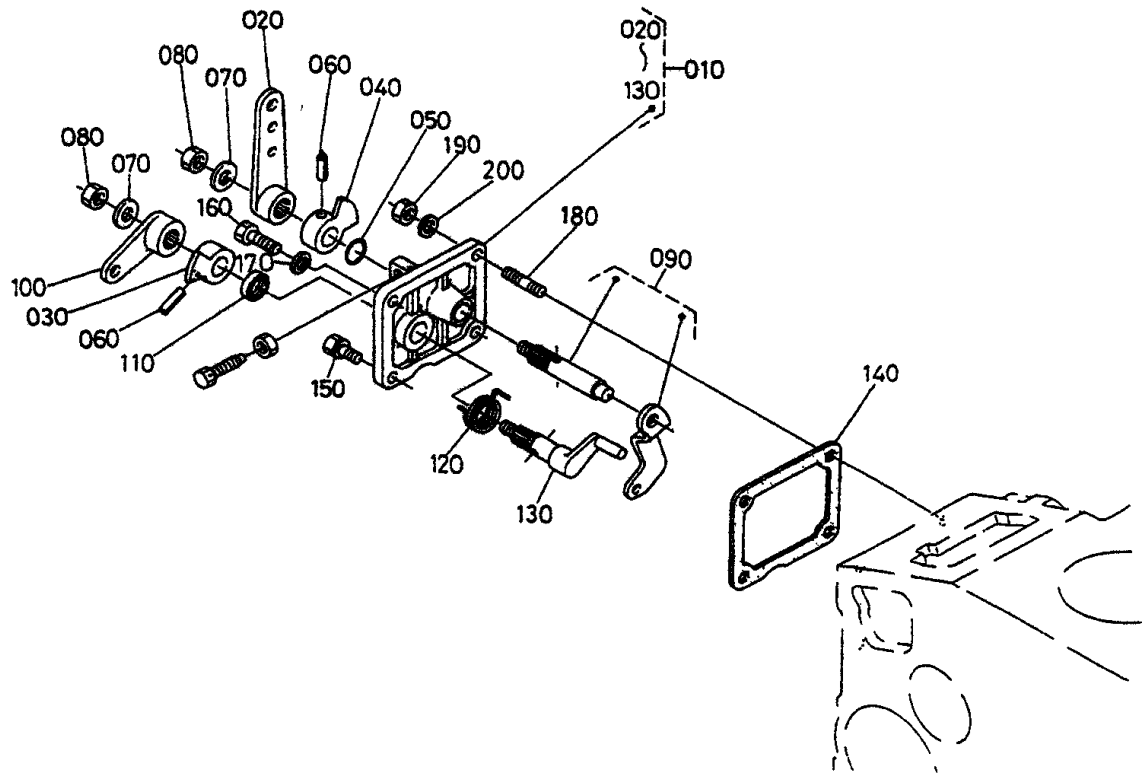
KUBOTA D905-EBG2 — GOVERNOR ASSY.

GOVERNOR ASSY.

<u>NO.</u>	<u>PART NO.</u>	<u>PART NAME</u>	<u>QTY.</u>	<u>REMARKS</u>
010	1626556480	SPRING, START	1	
020	1668456410	SPRING, GOVERNOR	1	
030	1668356052	ASSEMBLY LEVER, FORK	1	
040	1668356042	COMPLETE LEVER, FORK	1	
050	1981855600	BEARING	2	
060	1981855340	WASHER	2	
070	1668356130	LEVER, FORK	1	
080	1624156153	SHAFT, FORK LEVER	1	
090	1624194010	WASHER, PLAIN	1	
100	1624156330	BEARING, MINIATURIZE	1	
110	0461200090	CIR CLIP, EXTERNAL	1	
120	1624156250	COVER, FORK LEVER SHAFT	1	
130	1629956260	GASKET	1	
140	0102350614	BOLT	2	
150	1624156210	COLLAR	1	
160	1624156340	BEARING, MINIATURIZE	1	

KUBOTA D905-EBG2 — SPEED CONTROL PLATE ASSY.

SPEED CONTROL PLATE ASSY.



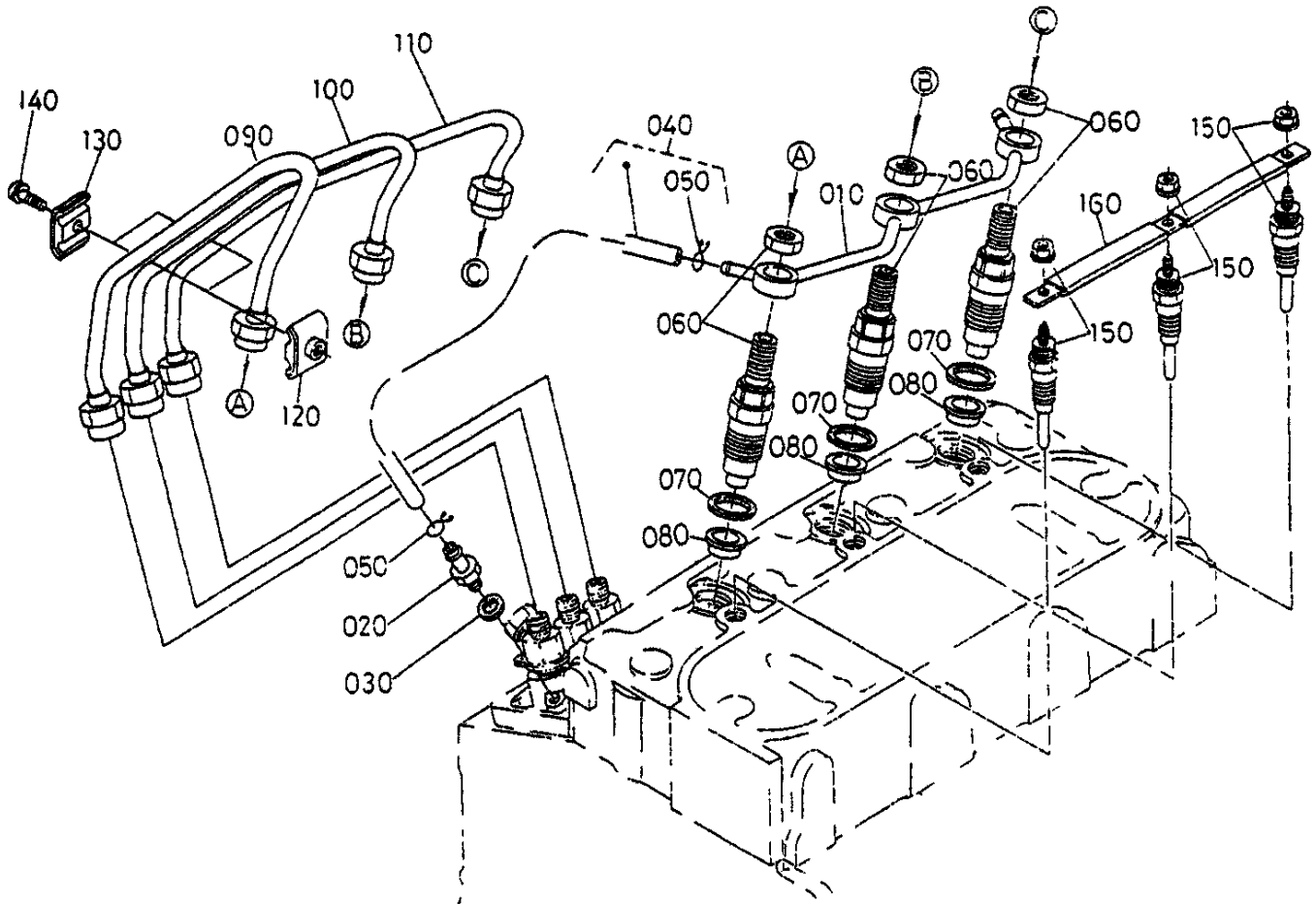
KUBOTA D905-EBG2 — SPEED CONTROL PLATE ASSY.

SPEED CONTROL PLATE ASSY.

<u>NO.</u>	<u>PART NO.</u>	<u>PART NAME</u>	<u>QTY.</u>	<u>REMARKS</u>
010	1668357014	ASSEMBLY PLATE, CONTROL	1	
020	1627157150	LEVER, SPEED CONTROL	1	
030	1624157160	LEVER, SPEED CONTROL	1	
040	1668357162	LEVER, SPEED CONTROL	1	
050	0481400100	O RING	1	
060	0541100420	PIN, SPRING	2	
070	1624194020	WASHER, PLAIN	2	
080	1624192020	NUT	2	
090	1668356020	COMPLETE LEVER, GOVERNOR	1	
100	1627157720	LEVER, ENGINE STOP	1	
110	1547157980	SEAL, OIL	1	
120	1622257510	SPRING, RETURN	1	
130	1627157740	SHAFT, STOP LEVER	1	
140	1626457210	GASKET	1	
150	0102350616	BOLT	1	
160	0105350618	BOLT	1	
170	1560196650	GASKET	1	
180	1624591540	STUD	2	
190	0205650060	NUT	2	
200	0451250060	WASHER, SPRING	2	

KUBOTA D905-EBG2 — NOZZLE HOLDER AND GLOW PLUG ASSY.

NOZZLE HOLDER AND GLOW PLUG ASSY.



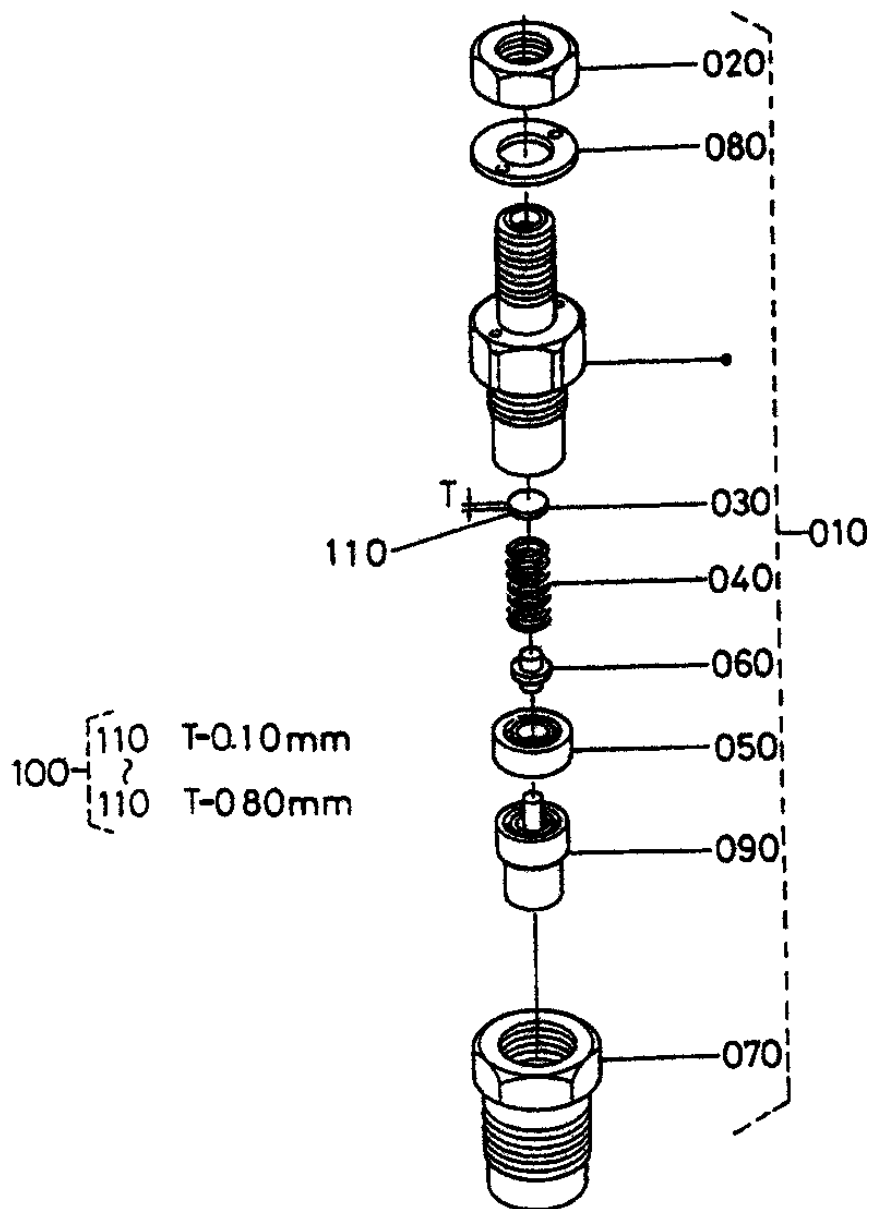
KUBOTA D905-EBG2 — NOZZLE HOLDER AND GLOW PLUG ASSY.

NOZZLE HOLDER AND GLOW PLUG ASSY.

<u>NO.</u>	<u>PART NO.</u>	<u>PART NAME</u>	<u>QTY.</u>	<u>REMARKS</u>
010	1626142502	ASSEMBLY PIPE, OVER FLOW	1	
020	1584151360	SCREW, AIR BREEDER	1	
030	1560196650	GASKET	1	
040	1584142500	ASSEMBLY PIPE, OVER FLOW	1	
050	1497142750	CLIP, PIPE	2	
060	1603253000	ASSEMBLY HOLDER, NOZZLE	3	
070	1584153622	GASKET	3	
080	1907753650	SEAL, HEAT	3	
090	1627153712	PIPE, INJECTION	1	
100	1627153722	PIPE, INJECTION	1	
110	1627153732	PIPE, INJECTION	1	
120	1584153850	CLAMP, PIPE	2	
130	1584153860	CLAMP, PIPE	2	
140	0302450520	SCREW, WITH WASHER	2	
150	1685165510	GLOW PLUG	3	
160	1626165560	CORD, GLOW PLUG	1	

KUBOTA D905-EBG2 — NOZZLE HOLDER (COMPONENTS) ASSY.

NOZZLE HOLDER (COMPONENT PARTS) ASSY.



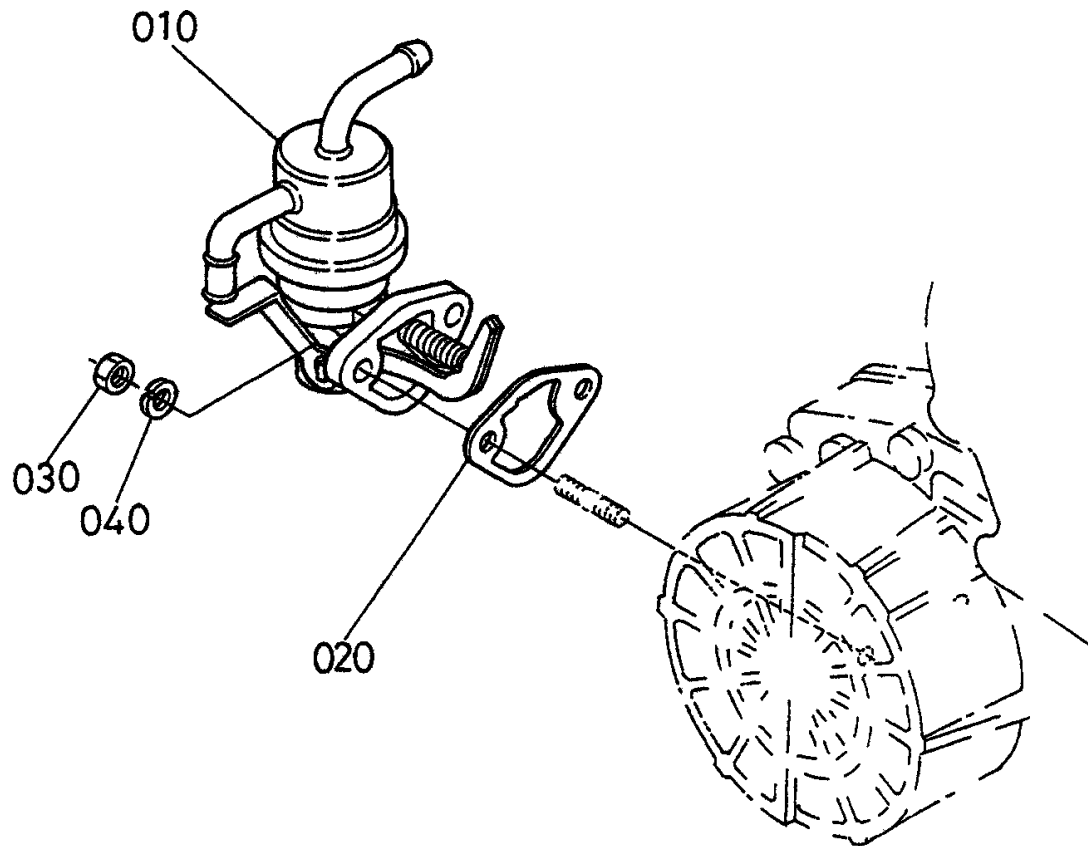
KUBOTA D905-EBG2 — NOZZLE HOLDER (COMPONENTS) ASSY.

NOZZLE HOLDER (COMPONENT PARTS) ASSY.

<u>NO.</u>	<u>PART NO.</u>	<u>PART NAME</u>	<u>QTY.</u>	<u>REMARKS</u>
010	1603253000	ASSEMBLY HOLDER, NOZZLE	3	
020	1603292030	NUT	3	
030	1603253230	WASHER, ADJUSTING	3	
040	1603253170	SPRING, NOZZLE	3	
050	1603253350	SPACER, DISTANCE	3	
060	1603253160	PUSH ROD	3	
070	1603253280	NUT, NOZZLE	3	
080	1603294040	WASHER, PLAIN	3	
090	1603253610	PIECE, NOZZLE	3	
100	1603298100	ASSEMBLY WASHER, ADJUST	3	OPTION
110	1603298500	WASHER, ADJUSTING	3	0. 10MM
110	1603298510	WASHER, ADJUSTING	3	0. 20MM
110	1603298520	WASHER, ADJUSTING	3	0. 30MM
110	1603298530	WASHER, ADJUSTING	3	0. 40MM
110	1603298540	WASHER, ADJUSTING	3	0. 50MM
110	1603298550	WASHER, ADJUSTING	3	0. 52MM
110	1603298560	WASHER, ADJUSTING	3	0. 54MM
110	16103298570	WASHER, ADJUSTING	3	0. 56MM
110	1603298580	WASHER, ADJUSTING	3	0. 58MM
110	1603298590	WASHER, ADJUSTING	3	0.80MM

KUBOTA D905-EBG2 — FUEL PUMP (MECHANICAL) ASSY.

FUEL PUMP (MECHANICAL) ASSY.



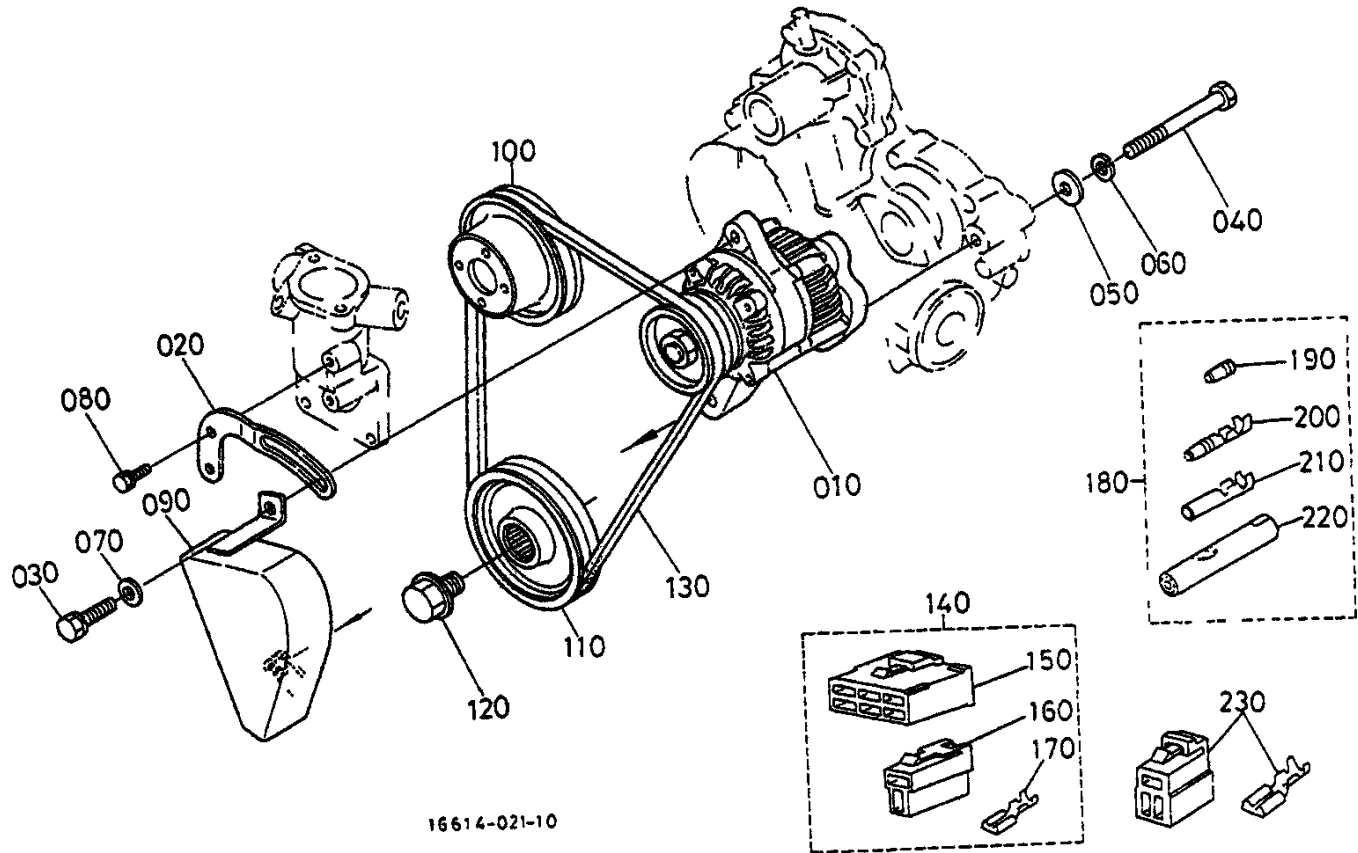
KUBOTA D905-EBG2 — FUEL PUMP (MECHANICAL) ASSY.

FUEL PUMP (MECHANICAL) ASSY.

<u>NO.</u>	<u>PART NO.</u>	<u>PART NAME</u>	<u>QTY.</u>	<u>REMARKS</u>
010	1628552032	ASSEMBLY PUMP, FUEL	1	
020	1626452140	GASKET, FUEL PUMP	1	
030	0205650060	NUT	2	
040	0451250060	WASHER, SPRING	2	

KUBOTA D905-EBG2 — ALTERNATOR AND PULLEY ASSY.

ALTERNATOR AND PULLEY ASSY.



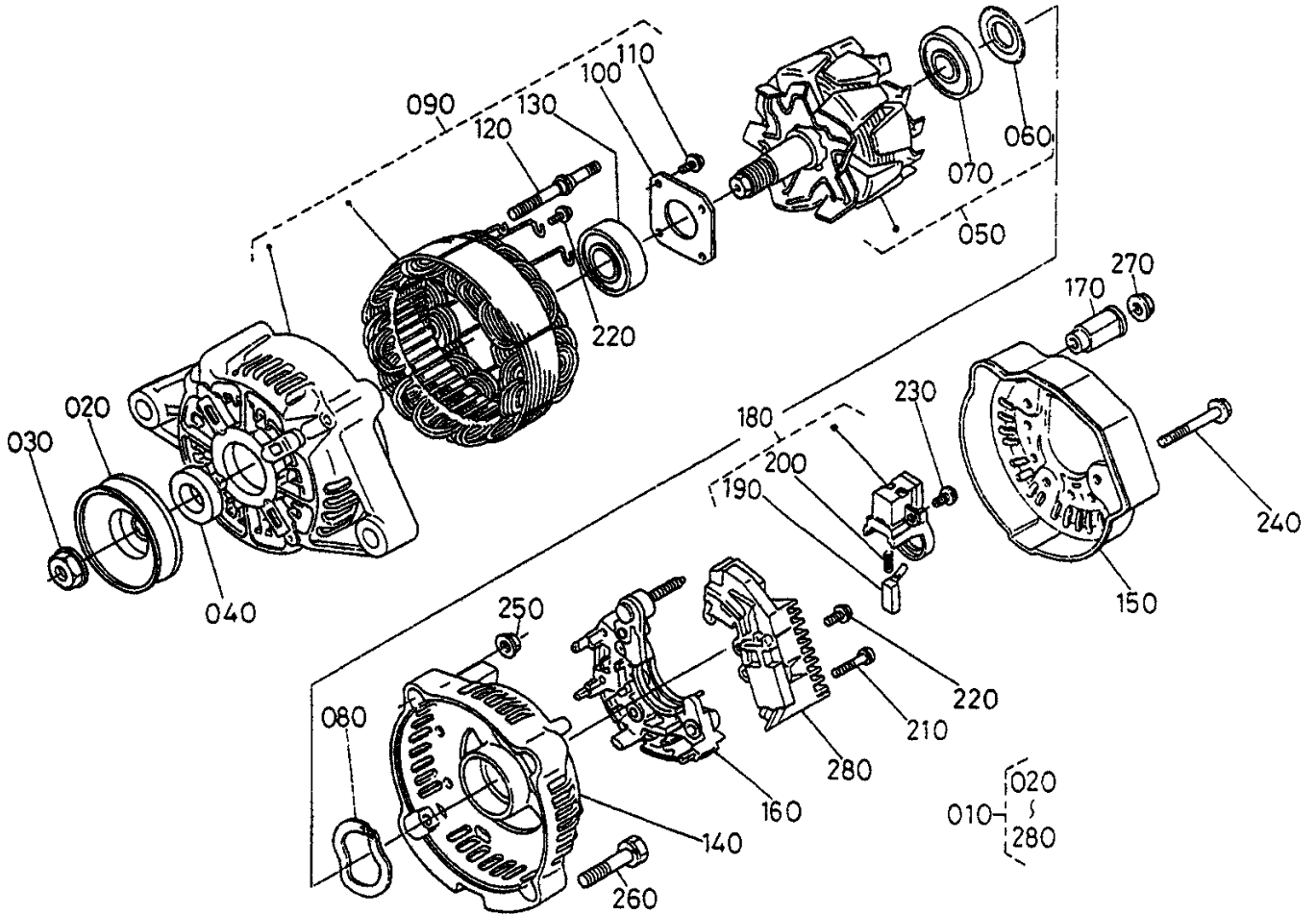
KUBOTA D905-EBG2 — ALTERNATOR AND PULLEY ASSY.

ALTERNATOR AND PULLEY ASSY.

<u>NO.</u>	<u>PART NO.</u>	<u>PART NAME</u>	<u>QTY.</u>	<u>REMARKS</u>
010	1623164010	ASSEMBLY ALTERNATOR	1	12V 30A
020	1624164420	STAY, DYNAMO	1	
030	0112350830	BOLT	1	
040	0117351085	BOLT	1	
050	0401150100	WASHER, PLAIN	1	
060	0451250100	WASHER, SPRING	1	
070	0401550080	WASHER, PLAIN	1	
080	0102350616	BOLT	1	
090	1661613860	COVER, BELT	1	
100	1624174250	PULLEY, FAN	1	
110	1626174280	PULLEY, FAN DRIVE	1	
120	1624191020	BOLT, FAN DRIVE	1	
130	1491197010	V BELT	1	37.6IN
140	1988365830	ASSEMBLY COUPLER	1	
150	1987265840	CONNECTOR	1	
160	1987265880	CONNECTOR	1	
170	1923765910	TERMINAL	7	
180	1926865780	ASSEMBLY TERMINAL	1	
190	6827165910	TERMINAL	1	
200	6827165920	SLEEVE	1	
210	1926865930	TERMINAL	1	
220	1926865870	SLEEVE	1	
230	1625965830	ASSEMBLY COUPLER, LOCK	1	

KUBOTA D905-EBG2 — ALTERNATOR (COMPONENT PARTS) ASSY.

ALTERNATOR (COMPONENT PARTS) ASSY.



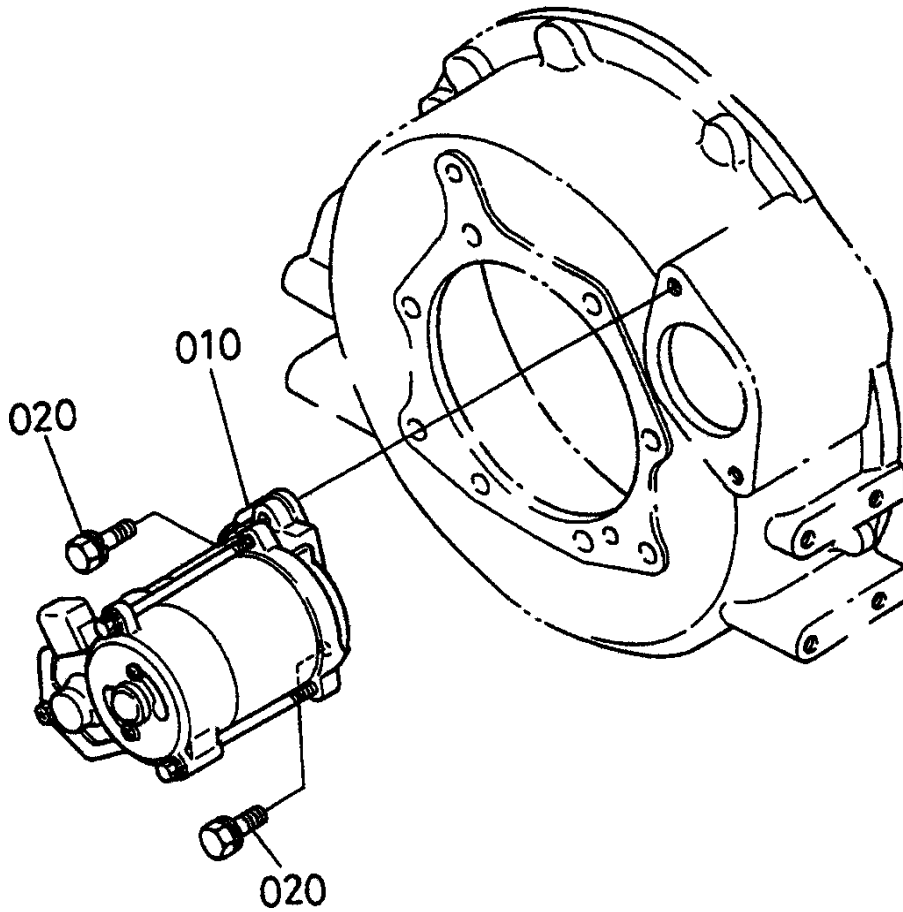
KUBOTA D905-EBG2 — ALTERNATOR (COMPONENT PARTS) ASSY.

ALTERNATOR (COMPONENT PARTS) ASSY.

<u>NO.</u>	<u>PART NO.</u>	<u>PART NAME</u>	<u>QTY.</u>	<u>REMARKS</u>
010	1623164010	ASSEMBLY ALTERNATOR	1	
020	1588164110	PULLEY, DYNAMO	1	
030	1588192010	NUT	1	
040	1588164150	COLLAR	1	
050	1588164040	ROTOR	1	
060	1588164800	COVER, BEARING	1	
070	1588164770	BEARING, BALL	1	
080	1588164810	WASHER, THRUST	1	
090	1623164020	FRAME, DRIVE END	1	
100	1588164710	PLATE, RETAINER	1	
110	1588193010	SCREW, ROUND HEAD	4	
120	1588164260	BOLT, THROUGH	2	
130	1588164780	BEARING, BALL	1	
140	1624164060	FRAME, END	1	
150	1624164230	COVER, END	1	
160	1623164850	ASSEMBLY RECTIFIER	1	
170	1624164900	BUSH, INSULATION	1	
180	1588164310	HOLDER, BRUSH	1	
190	1588164090	BRUSH	2	
200	1588164330	SPRING, BRUSH	2	
210	1588193020	SCREW, ROUND HEAD	2	
220	1588193030	SCREW, ROUND HEAD	6	
230	1588193040	SCREW, ROUND HEAD	1	
240	1588191040	BOLT	3	
250	1588192020	NUT	2	
260	1588191050	BOLT	2	
270	1418292030	NUT	1	
280	1588164600	ASSEMBLY REGULATOR	1	

KUBOTA D905-EBG2 — STARTER ASSY.

STARTER ASSY.



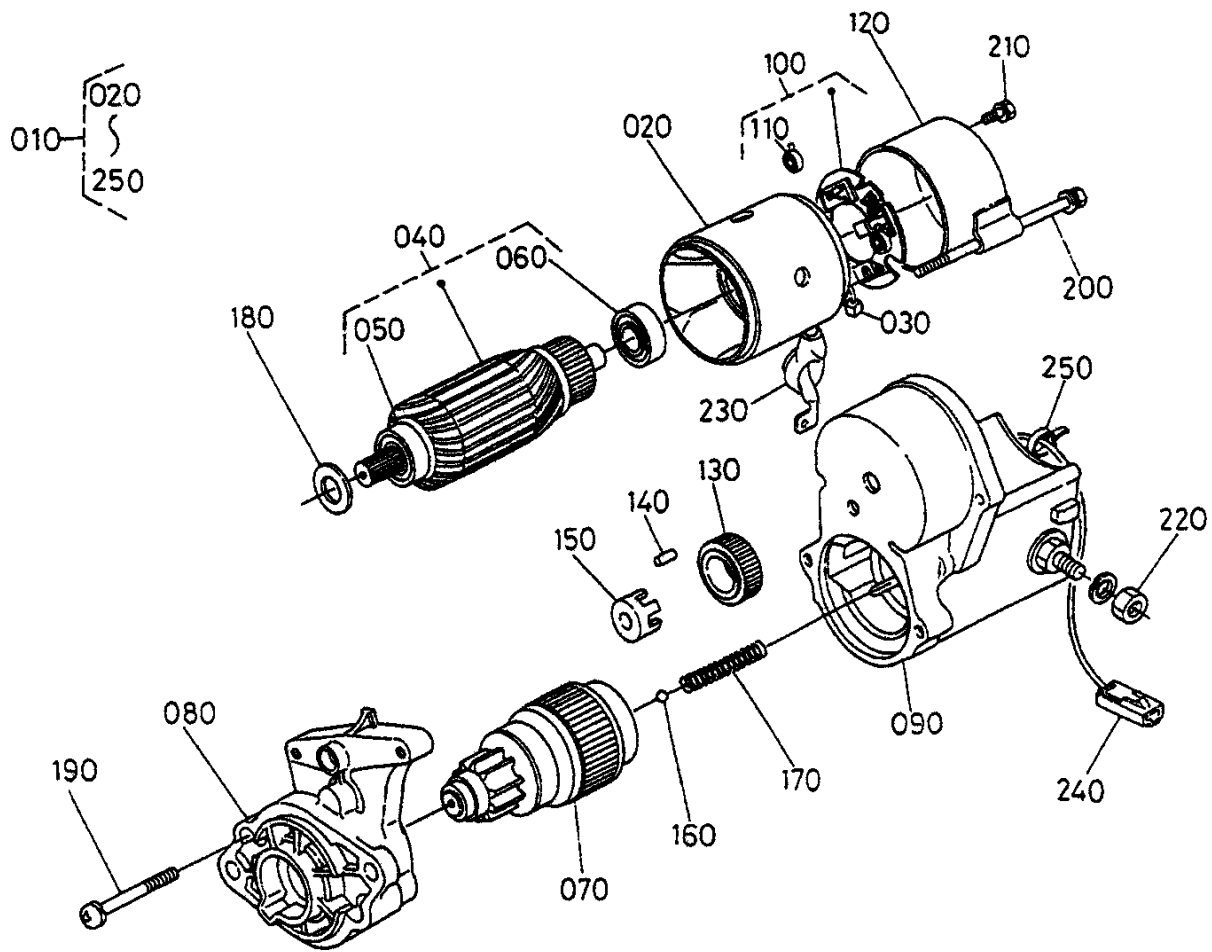
KUBOTA D905-EBG2 — STARTER ASSY.

STARTER ASSY.

<u>NO.</u>	<u>PART NO.</u>	<u>PART NAME</u>	<u>QTY.</u>	<u>REMARKS</u>
010	1661263010	ASSEMBLY STARTER	1	12V 1. OKW
020	0112350830	BOLT	2	

KUBOTA D905-EBG2 — STARTER (COMPONENT PARTS) ASSY.

STARTER (COMPONENT PARTS) ASSY.



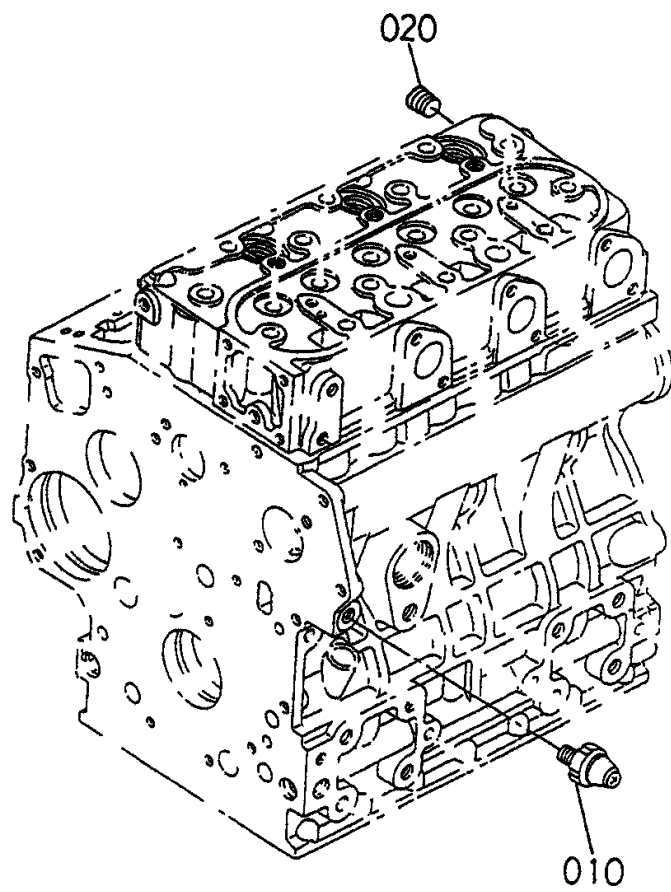
KUBOTA D905-EBG2 — STARTER (COMPONENT PARTS) ASSY.

STARTER (COMPONENT PARTS) ASSY.

<u>NO.</u>	<u>PART NO.</u>	<u>PART NAME</u>	<u>QTY.</u>	<u>REMARKS</u>
010	1651263010	ASSEMBLY STARTER	1	
020	1661263080	ASSEMBLY YOKE	1	
030	1550163370	BRUSH	2	
040	1550163070	ARMATURE	1	
050	1550463500	BEARING, BALL	1	
060	1550463530	BEARING BALL	1	
070	1550463040	CLUTCH	1	
080	1550463030	HOUSING	1	
090	1661263020	ASSEMBLY SWITCH, MAGNETIC	1	
100	1550163380	HOLDER, BRUSH	1	
110	1540163390	SPRING, BRUSH	4	
120	1627163200	FRAME, END	1	
130	1123363280	GEAR	1	
140	1921263100	ROLLER	5	
150	1921263110	RETAINER	1	
160	1921297130	BALL	1	
170	1921263120	SPRING	1	
180	1550196670	WASHER, FELT	1	
190	1550193310	SCREW, PAN- HEAD	2	
200	1550163320	BOLT, THROUGH	2	
210	1550191020	BOLT	2	
220	6795559230	NUT	1	
230	6795559240	COVER	1	
240	1661163660	CORD, STOP SOLENOID	1	
250	1661263100	BAND, COVER	1	

KUBOTA D905-EBG2 — OIL SWITCH/THERMOMETER AND PLUG ASSY.

OIL SWITCH/THERMOMETER AND PLUG ASSY.



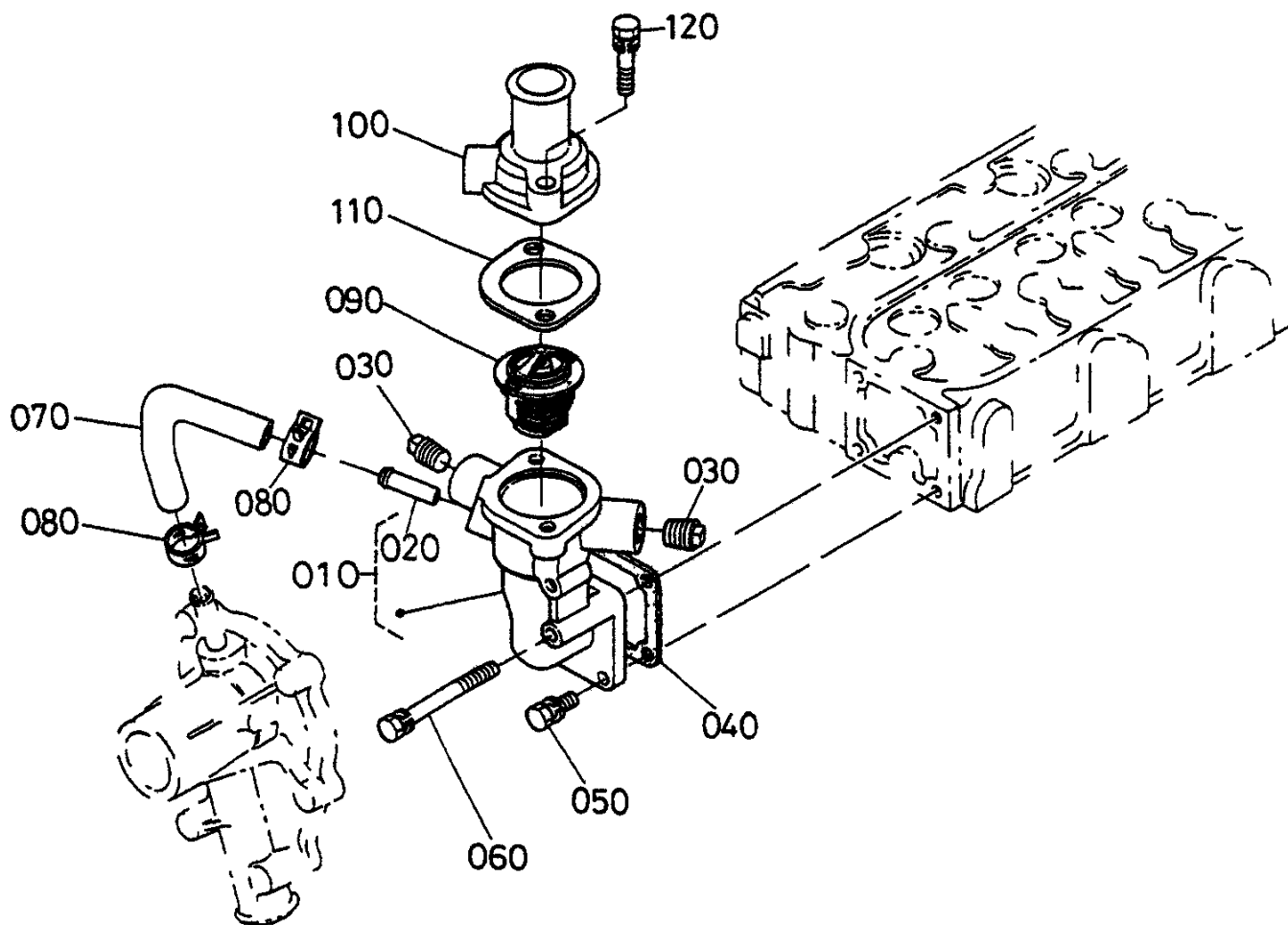
KUBOTA D905-EBG2 — OIL SWITCH/THERMOMETER AND PLUG ASSY.

OIL SWITCH/ THERMOMETER AND PLUG ASSY.

<u>NO.</u>	<u>PART NO.</u>	<u>PART NAME</u>	<u>QTY.</u>	<u>REMARKS</u>
010		SWITCH, OIL	1	SEE PAGE 49, ITEM 20
020	1584196020	PLUG	1	

KUBOTA D905-EBG2 — WATER FLANGE AND THERMOSTAT ASSY.

WATER FLANGE AND THERMOSTAT ASSY.



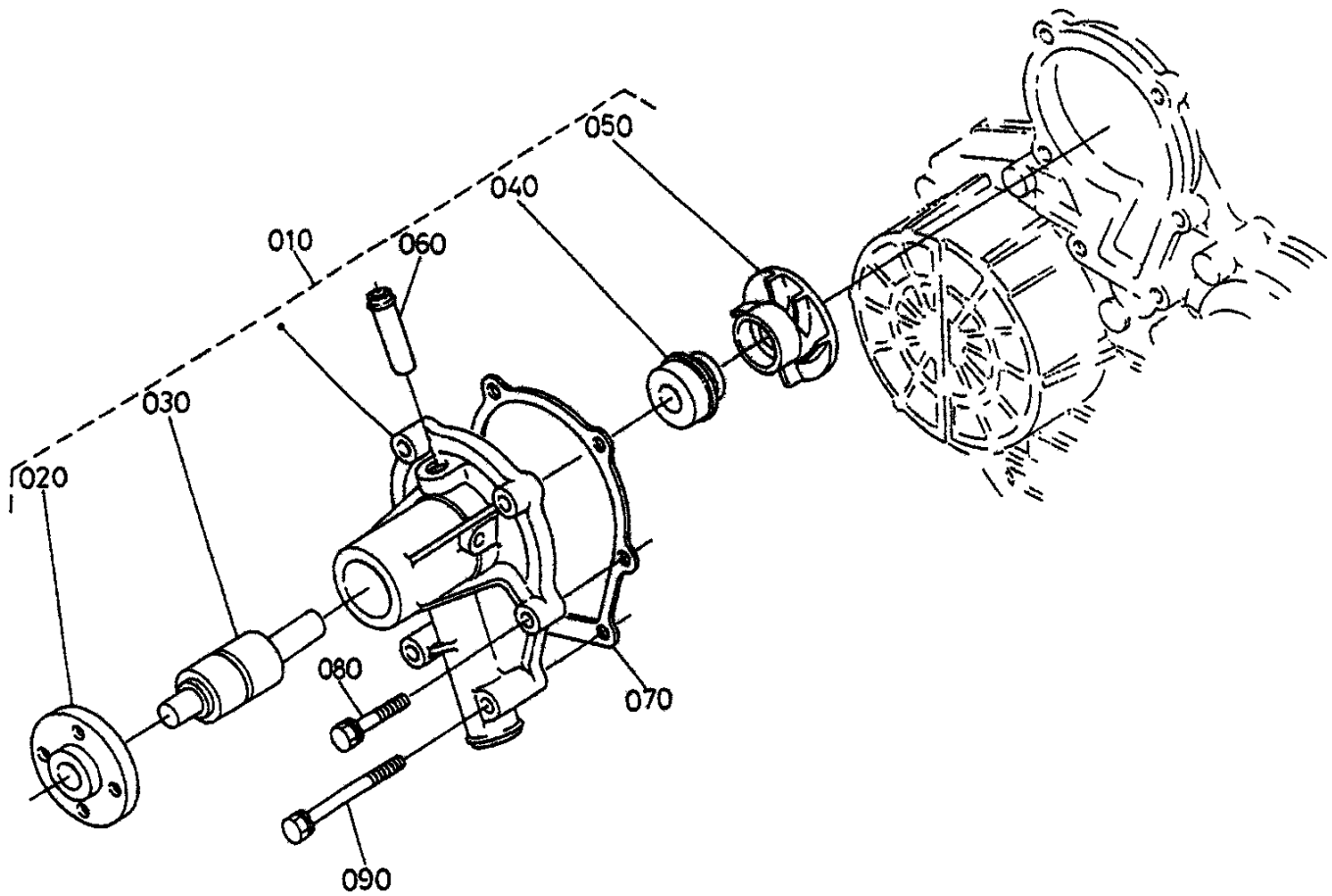
KUBOTA D905-EBG2 — WATER FLANGE AND THERMOSTAT ASSY.

WATER FLANGE AND THERMOSTAT ASSY.

<u>NO.</u>	<u>PART NO.</u>	<u>PART NAME</u>	<u>QTY.</u>	<u>REMARKS</u>
010	1661372700	COMPLETE FLANGE, WATER	1	
020	1624173370	PIPE, WATER RETURN	1	
030	1929896020	PLUG	2	
040	1626472920	GASKET, WATER FLANGE	1	
050	0102350616	BOLT	3	
060	0102350655	BOLT	1	
070	1624173350	PIPE, WATER RETURN	1	
080	1624173360	BAND, PIPE	2	
090	1943473010	ASSEMBLY THERMOSTAT	1	
100	1621973260	COVER, THERMOSTAT	1	
110	1531373270	GASKET, THERMOSTAT	1	
120	0112350835	BOLT	2	

KUBOTA D905-EBG2 — WATER PUMP ASSY.

WATER PUMP ASSY.



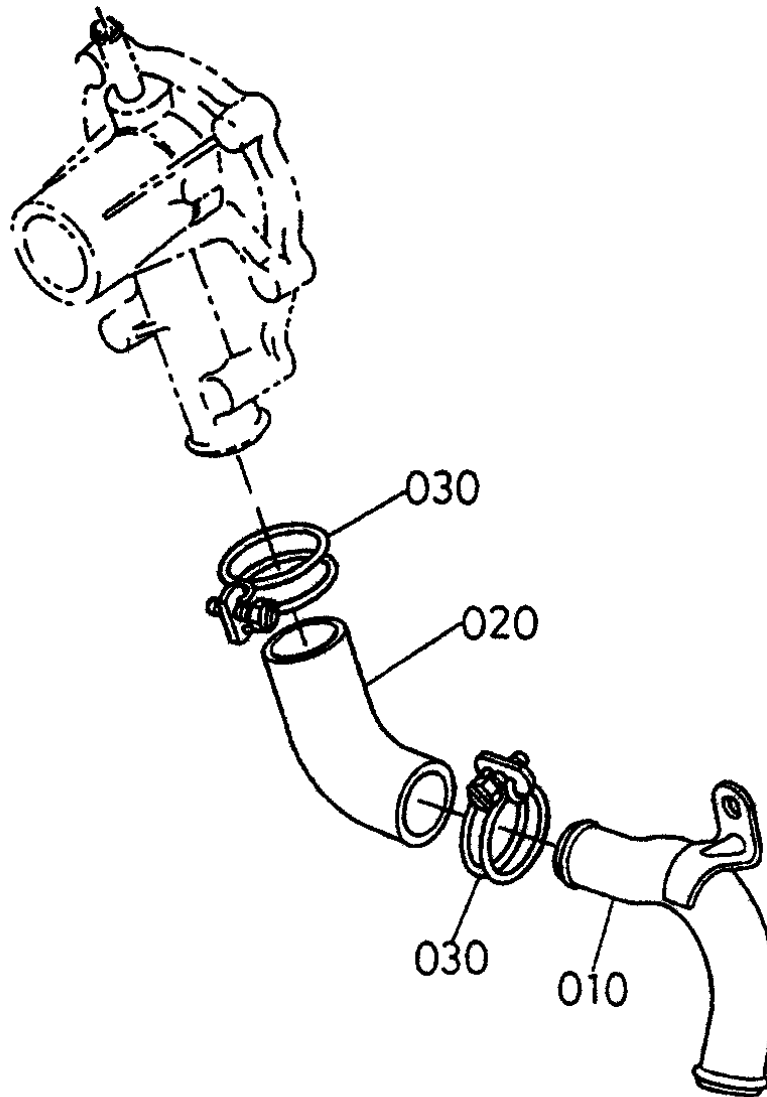
KUBOTA D905-EBG2 — WATER PUMP ASSY.

WATER PUMP ASSY.

<u>NO.</u>	<u>PART NO.</u>	<u>PART NAME</u>	<u>QTY.</u>	<u>REMARKS</u>
010	1625973032	ASSEMBLY PUMP, WATER	1	
020	1625973520	FLANGE, WATER PUMP	1	
030	1625973550	BEARING	1	
040	1548173050	ASSEMBLY SEAL, MECHANICAL	1	
050	1625973510	IMPELLER, WATER PUMP	1	
060	1624173340	PIPE, WATER RETURN	1	
070	1623973430	GASKET, WATER PUMP	1	
080	0102350630	BOLT	4	
090	0102350680	BOLT	2	

KUBOTA D905-EBG2 — WATER PIPE ASSY.

WATER PIPE ASSY.



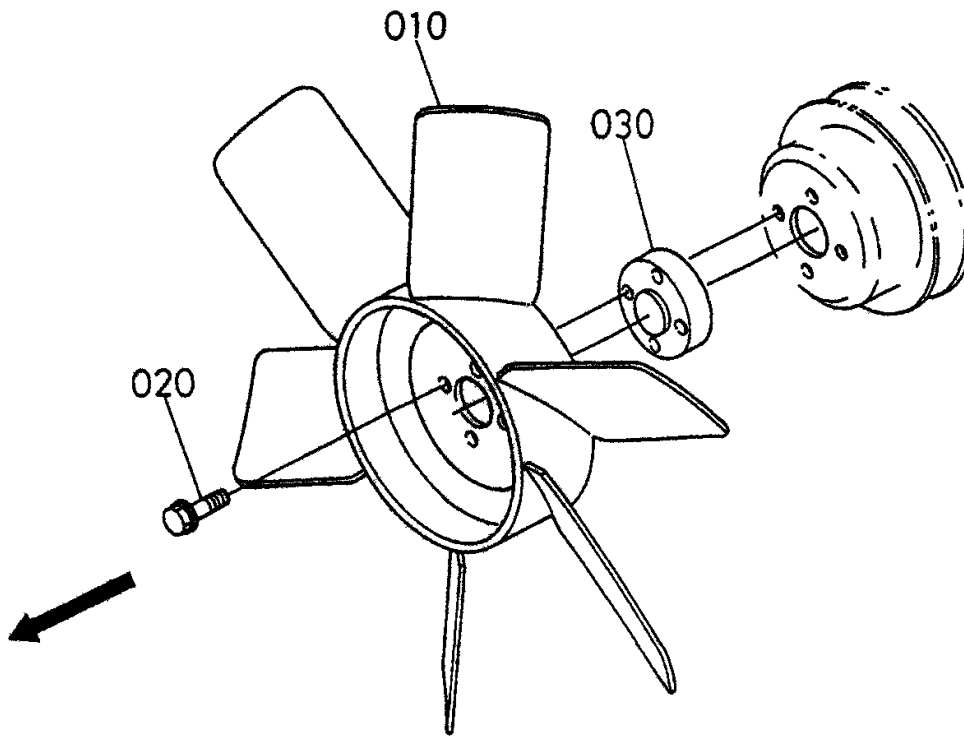
KUBOTA D905-EBG2 — WATER PIPE ASSY.

WATER PIPE ASSY.

<u>NO.</u>	<u>PART NO.</u>	<u>PART NAME</u>	<u>QTY.</u>	<u>REMARKS</u>
010	1628572860	PIPE, WATER	1	
020	1624172870	PIPE, WATER	1	
030	3620082720	CLAMP	2	

KUBOTA D905-EBG2 — FAN ASSY.

FAN ASSY.



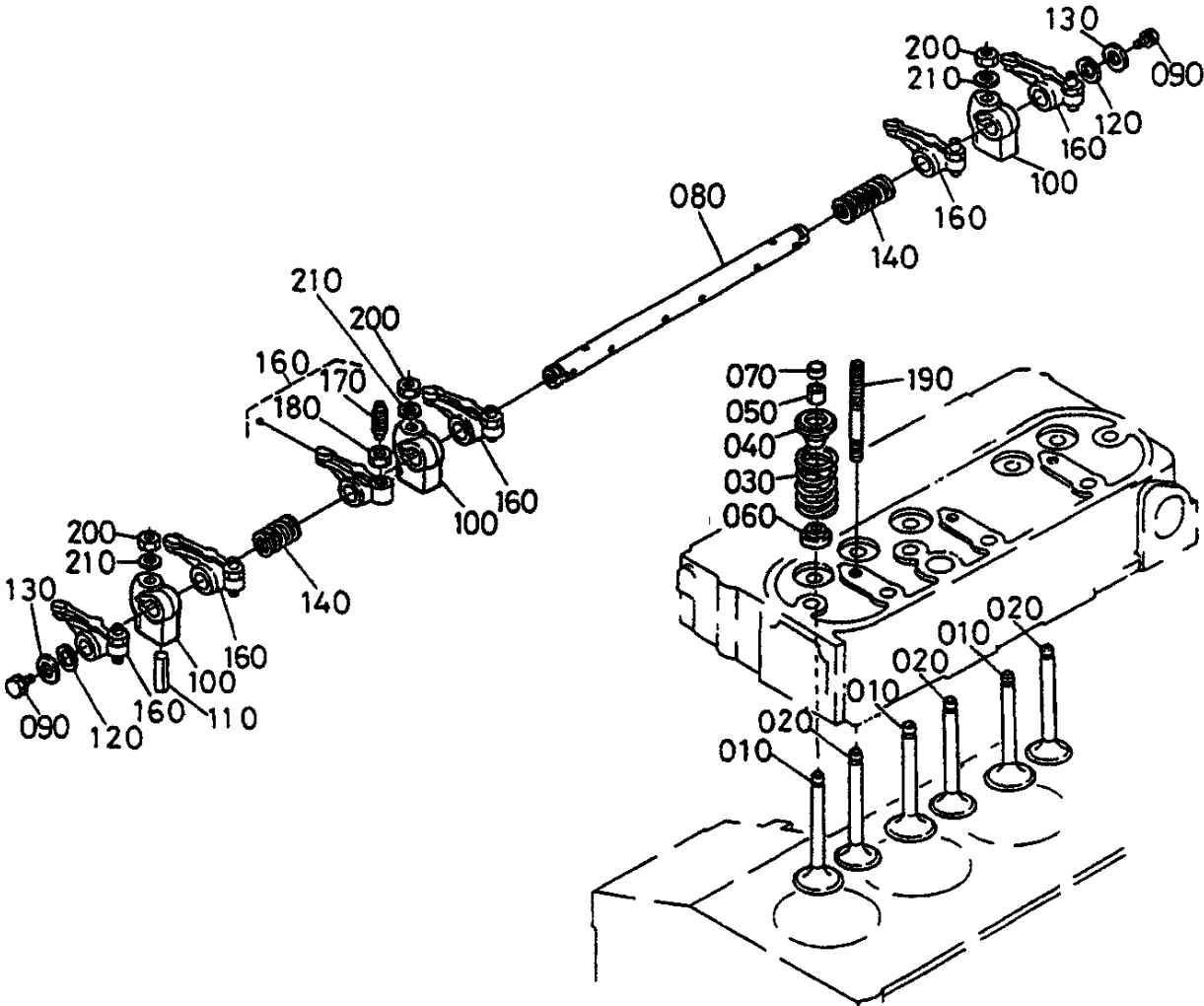
KUBOTA D905-EBG2 — FAN ASSY.

FAN ASSY.

<u>NO.</u>	<u>PART NO.</u>	<u>PART NAME</u>	<u>QTY.</u>	<u>REMARKS</u>
010	1554774112	FAN	1	
020	0175450620	BOLT, FLANGE	4	
030	1587674150	COLLAR, FAN	1	

KUBOTA D905-EBG2 — VALVE AND ROCKER ARM ASSY.

VALVE AND ROCKER ARM ASSY.



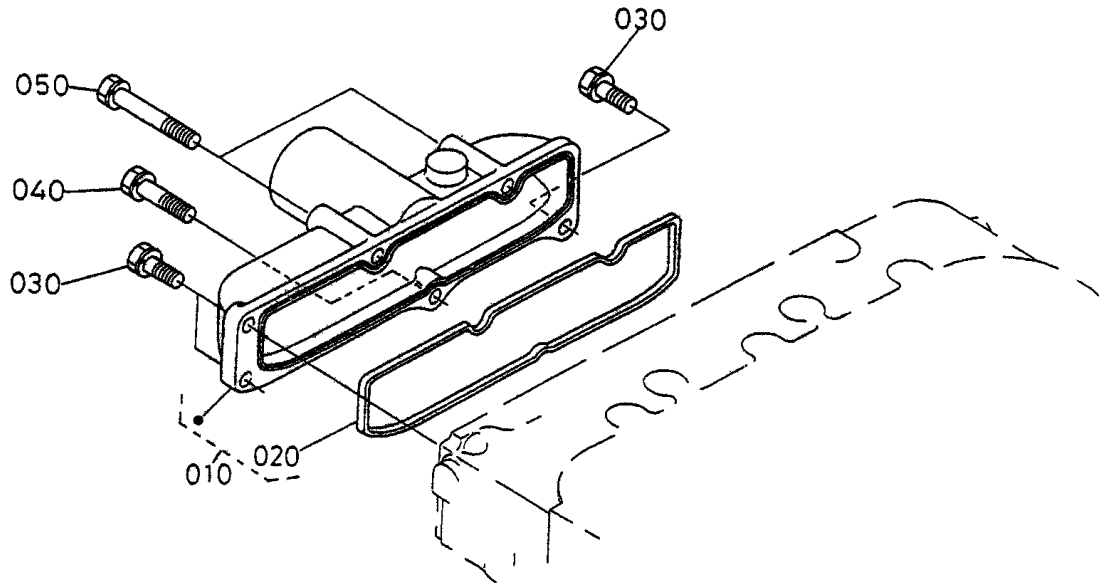
KUBOTA D905-EBG2 — VALVE AND ROCKER ARM ASSY.

VALVE AND ROCKER ARM ASSY.

<u>NO.</u>	<u>PART NO.</u>	<u>PART NAME</u>	<u>QTY.</u>	<u>REMARKS</u>
010	1624113110	VALVE, INLET	3	
020	0624113120	VALVE, EXHAUST	3	
030	1627113240	SPRING, VALVE	6	
040	1624113330	RETAINER, VALVE SP.	6	
050	1526113360	COLLET, VALVE SPRING	6	SET
060	1C01013150	SEAL, VALVE STEM	6	
070	1624113280	CAP, VALVE	6	
080	1626114264	SHAFT, ROCKER ARM	1	
090	0102350610	BOLT	2	
100	1624114350	BRACKET, ROCKER ARM	3	
110	0541100428	PIN, SPRING	1	
120	1624114430	WASHER, R- ARM. SHAFT	2	
130	1584194022	WASHER, PLAIN	2	
140	1624114319	SPRING, ROCKER ARM	2	
160	1624114032	ASSEMBLY ROCKER ARM	6	
170	1624114230	SCREW, ADJUSTING	6	
180	1624114240	NUT	6	
190	1624114410	STUD	3	
200	1526192010	NUT	3	
210	1526194010	WASHER, PLAIN	3	

KUBOTA D905-EBG2 — INLET MANIFOLD ASSY.

INLET MANIFOLD ASSY.



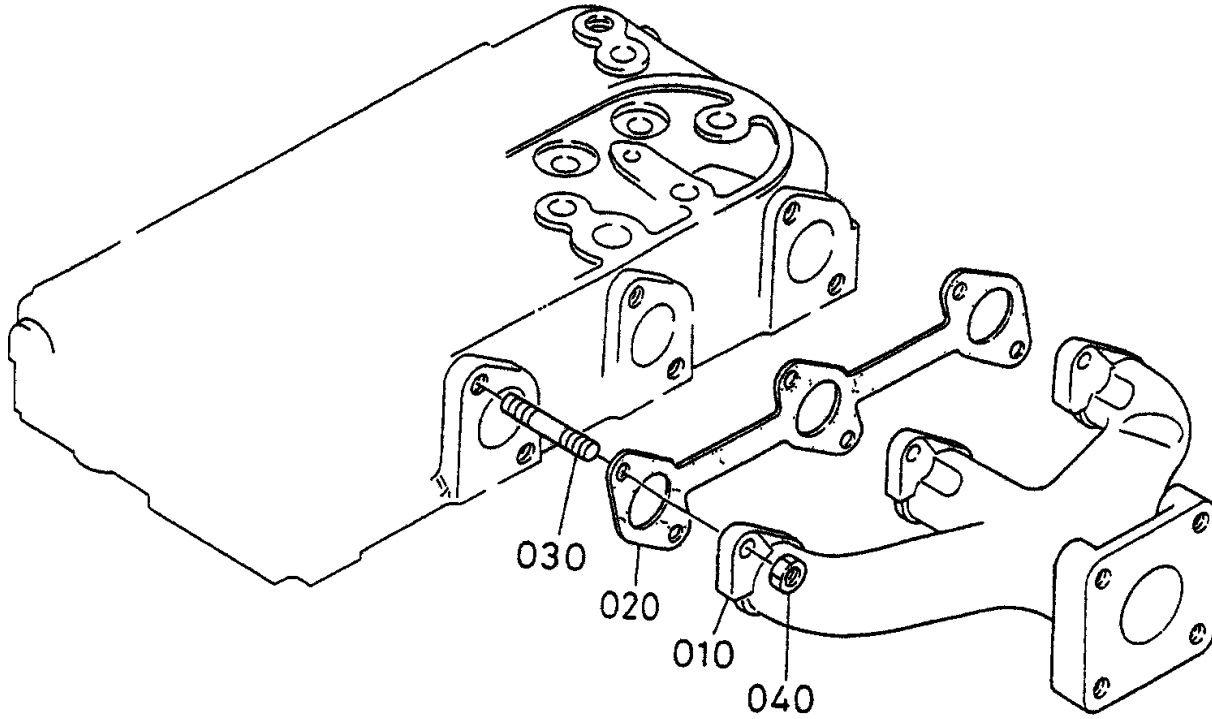
KUBOTA D905-EBG2 — INLET MANIFOLD ASSY.

INLET MANIFOLD ASSY.

<u>NO.</u>	<u>PART NO.</u>	<u>PART NAME</u>	<u>QTY.</u>	<u>REMARKS</u>
010	1626111770	ASSEMBLY MANIFOLD, INLET	1	
020	1626111822	GASKET, IN- MANIFOLD	1	
030	0102350618	BOLT	3	
040	0102350630	BOLT	1	
050	0102360650	BOLT	2	

KUBOTA D905-EBG2 — EXHAUST MANIFOLD ASSY.

EXHAUST MANIFOLD ASSY.



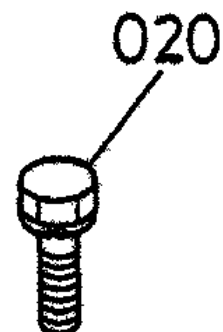
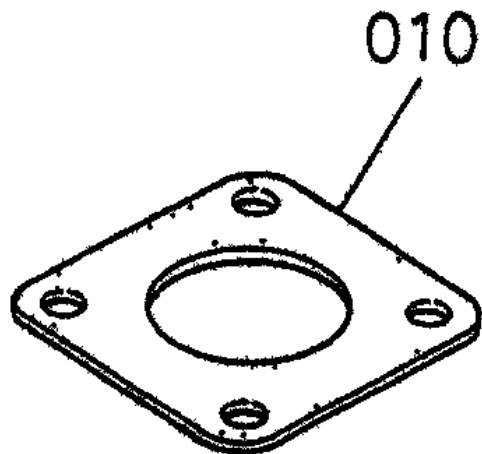
KUBOTA D905-EBG2 — EXHAUST MANIFOLD ASSY.

EXHAUST MANIFOLD ASSY.

<u>NO.</u>	<u>PART NO.</u>	<u>PART NAME</u>	<u>QTY.</u>	<u>REMARKS</u>
010	1721312312	MANIFOLD, EXHAUST	1	
020	1626112350	GASKET, EX- MANIFOLD	1	
030	1624191490	STUD	6	
040	1627192010	NUT	6	

KUBOTA D905-EBG2 — ACCESSORIES AND SERVICE PARTS ASSY.

ACCESSORIES AND SERVICE PARTS ASSY.



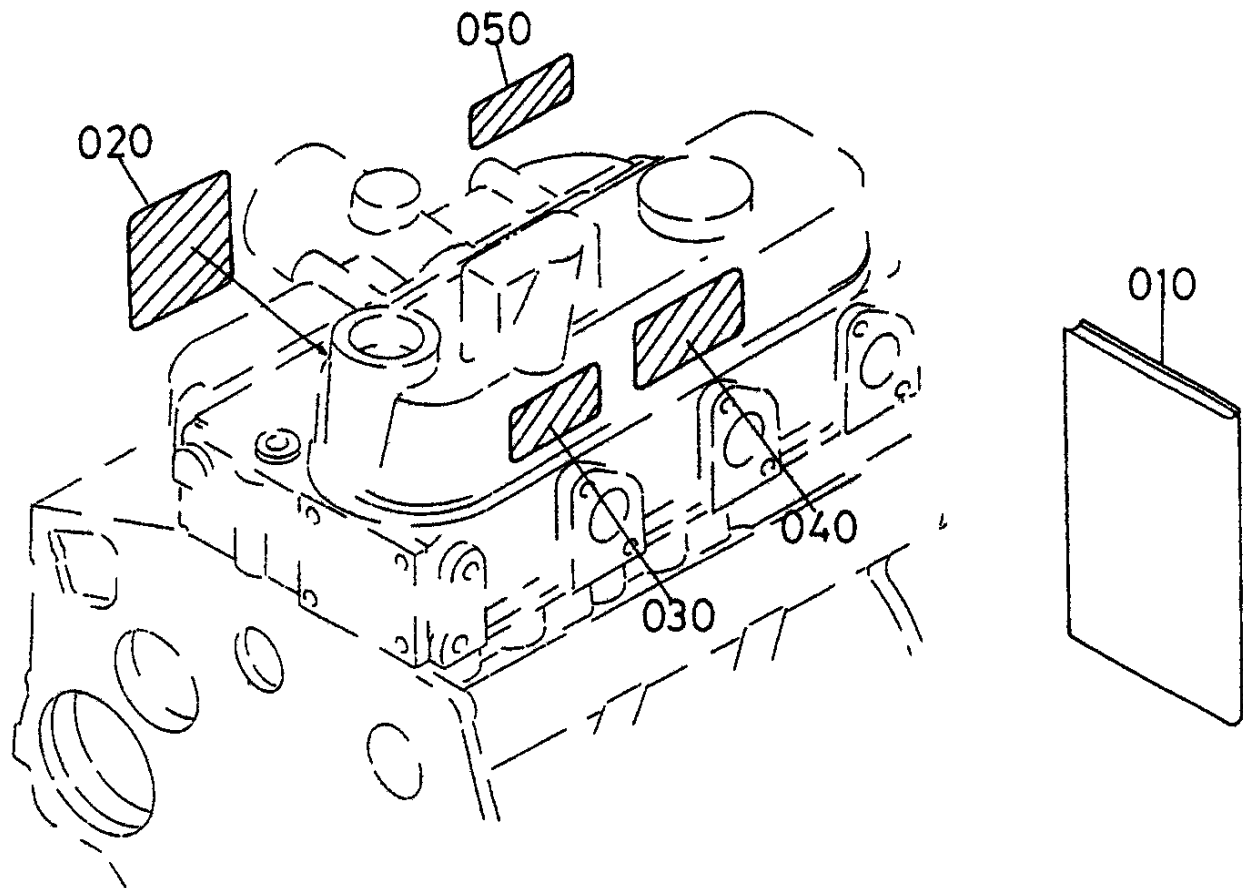
KUBOTA D905-EBG2 — ACCESSORIES AND SERVICE PARTS ASSY.

ACCESSORIES AND SERVICE PARTS ASSY.

<u>NO.</u>	<u>PART NO.</u>	<u>PART NAME</u>	<u>QTY.</u>	<u>REMARKS</u>
010	1526312370	GASKET, MUFFLER NA	1	
020	0112350822	BOLT	4	

KUBOTA D905-EBG2 — LABEL AND OPERATOR'S MANUAL ASSY.

LABEL AND OPERATOR'S MANUAL ASSY.



KUBOTA D905-EBG2 — LABEL AND OPERATOR'S MANUAL ASSY.

LABEL AND OPERATOR'S MANUAL ASSY.

<u>NO.</u>	<u>PART NO.</u>	<u>PART NAME</u>	<u>QTY.</u>	<u>REMARKS</u>
010	1668389166	MANUAL, INSTRUCTION	1	
020	1622587114	NAME PLATE, ENGINE	1	
030	1942687903	LABEL	1	
040	1942687880	LABEL, INSTRUCTION	1	
050	1668388690	LABEL	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

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