

# OPERATION, MAINTENANCE, PARTS MANUAL



**Doosan Infracore**  
Portable Power

**BX-6WH**  
**BX-8WH**  
**BX-12WH**

## VIBRATORY PLATE COMPACTORS



**This manual contains important safety information.**

**Do not destroy this manual.**

**This manual must be available to the personnel who operate and maintain this machine.**

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**BX-6WH/8WH/12WH PLATE COMPACTOR  
OPERATION AND MAINTENANCE MANUAL  
COMMUNICATION NO. 13208400**

This manual should be used with all related supplemental books, engine and transmission manuals, and part books. Related Service Bulletins should be reviewed to provide information regarding some of the recent changes.

If any questions arise concerning this publication or others, contact your local distributor for the latest available information.

Contents of this manual are based on information in effect at the time of publication and are subject to change without notice.

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## SECTION 1 - SAFETY PRECAUTIONS AND GUIDELINES

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### OVERVIEW

BEFORE YOU OPERATE, MAINTAIN OR IN ANY OTHER WAY, OPERATE THIS MACHINE:

READ and STUDY this manual. KNOW how to safely use the unit's controls and what you must do for safe maintenance.

The machine has been built in accordance with state-of-the-art standards and the recognized safety rules. Nevertheless, its use may constitute a risk to life and limb of the user or of third parties, or cause damage to the machine and to other material property.

ALWAYS wear or use the proper safety items required for your personal protection.

For reasons of security, long hair must be tied back or otherwise secured, garments must be close-fitting and no jewelry - such as rings or watches - may be worn. Injury may result from being caught up in the machinery or from rings catching on moving parts.

If you have ANY QUESTIONS about the safe use or maintenance of this unit, ASK YOUR SUPERVISOR OR CONTACT ANY INGERSOLL-RAND DISTRIBUTOR. NEVER GUESS - ALWAYS CHECK.

Never make any modifications, additions or conversions which might affect safety without the supplier's approval. This also applies to the installation and adjustment of safety devices and valves as well as to welding work on load-bearing elements.

Observe all fire-warning and fire-fighting procedures.

### PRE-START INSPECTION

INSPECT your machine. Have any malfunctioning, broken or missing parts corrected or replaced before use.

Check the machine at least once per working shift for obvious damage and defects. Report any changes (incl. changes in the machine's working behaviour) to the competent organization/person immediately. If necessary, stop the machine immediately and lock it.

Take the necessary precautions to ensure that the machine is used only when in a safe and reliable state.

Operate the machine only if all protective and safety oriented devices, such as removable safety devices, emergency shut-off equipment, sound-proofing elements and exhausts, are in place and fully functional.

The electrical equipment of machines is to be inspected and checked at regular intervals. Defects such as loose connections or scorched cables must be rectified immediately.

VERIFY that all the instruction and safety labels are in place and readable. These are as important as any other equipment on the compactor.

NEVER fill the fuel tank, with the engine running, while near an open flame, or while smoking. ALWAYS wipe up any spilled fuel **immediately**.

## **SECTION 1 - SAFETY PRECAUTIONS AND GUIDELINES**

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CHECK for WARNING tags placed on the machine. DO NOT operate the equipment until repairs have been made and the WARNING tags have been removed by authorized personnel.

KNOW the location of the Emergency Shut-Down Control if the machine is so equipped.

### **OPERATING**

In the event of safety-relevant modifications or changes in the behaviour of the machine during operation, stop the machine immediately and report the malfunction to the competent authority/person.

Always wear the prescribed ear protectors.

Always make sure that no person or obstruction is in your line of travel. Watch your step to avoid tripping.

USE extreme caution and be observant when working in close quarters or congested areas.

Before beginning work, familiarize yourself with the surroundings and circumstances of the site, such as obstacles in the working and travelling area, the soil bearing capacity and any barriers separating the construction site from public roads.

When travelling on public roads, ways and places always observe the valid traffic regulations and, if necessary, make sure beforehand that the machine is in a condition compatible with these regulations

Always keep at a distance from the edges of building pits and slopes.

DO NOT run the engine in a closed building for an extended length of time. EXHAUST FUMES CAN KILL.

DO NOT operate the compactor on non-compactable material, such as concrete or hardened asphalt.

### **MAINTENANCE**

Observe the adjusting, maintenance and inspection activities and intervals set out in the operating instructions, including information on the replacement of parts and equipment. These activities must be executed by skilled personnel only.

Ensure that the maintenance area is adequately secured.

After cleaning, examine all fuel, lubricant, and hydraulic fluid lines for leaks, loose connections, chafe marks and damage. Any defects found must be rectified without delay.

Always tighten any screwed connections that have been loosened during maintenance and repair.

## **SECTION 1 - SAFETY PRECAUTIONS AND GUIDELINES**

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Any safety devices removed for set-up, maintenance or repair purposes must be refitted and checked immediately upon completion of the maintenance and repair work.

Ensure that all consumables and replaced parts are disposed of safely and with minimum environmental impact.  
AVOID, whenever possible, servicing, cleaning or examining the unit with the engine running.

NEVER fill the fuel tank, with the engine running, while near an open flame, or while smoking. ALWAYS wipe up any spilled fuel immediately.

ALWAYS disconnect the spark plug before performing any work on the unit.

DO NOT alter the engine governor settings from those indicated in the engine manual.

ALWAYS replace damaged or lost decals. Refer to the Parts Manual for the proper location and part number of all decals.

Carry out welding, flame-cutting and grinding work on the machine only if this has been expressly authorized, as there may be a risk of explosion and fire.

Before carrying out welding, flame-cutting and grinding operations, clean the machine and its surroundings from dust and other inflammable substances and make sure that the premises are adequately ventilated (risk of explosion).

## SECTION 2 - INTRODUCTION

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EXCELLENT CHOICE! The Ingersoll-Rand Vibratory Plate Compactor you have chosen will give you many hours of maintenance free operation resulting in a faster return of your investment.

Safe operation depends on reliable equipment and the use of proper operating procedures. Performing the checks and services described in this manual will help keep your machine in good condition. These recommended operation procedures will help you to avoid unsafe practices.

Safety notes have been included throughout this manual to help you avoid injury and prevent damage to the equipment. These notes are not intended to cover all eventualities; it is impossible to anticipate and evaluate all possible methods of operation. Therefore, you are the only person who can guarantee safe operation and maintenance. It is important that any procedure not specifically recommended in this manual be thoroughly evaluated from the standpoint of safety before it is implemented.







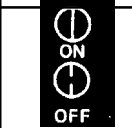
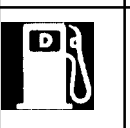
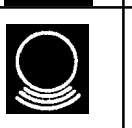
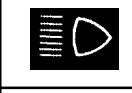





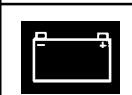












Continuing improvement and advancement of product design may cause changes to your machine which may not be included in this publication. Each publication is reviewed and revised, as required, to update and include these changes in later editions. Ingersoll-Rand reserves the right to modify or make changes within a specific model group without notice and without incurring any liability to retrofit units previously shipped from the factory. Contact your Ingersoll-Rand Distributor for non-routine maintenance information that is not covered in this publication.

## SECTION 3 - SYMBOL IDENTIFICATION AND METRIC CONVERSION

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### INTERNATIONAL MACHINE SYMBOLS

























The following explains the meaning of international symbols that may appear on your machine

	OIL PRESSURE		HORN		LOW ENGINE RPM.
	WATER TEMPERATURE		CAUTION		BRAKE - PARK
	ON / OFF		DIESEL FUEL		VIBRATION
	LIGHTS		SLOW		AMPLITUDE
	WATER		FAST		FREQUENCY
	BATTERY		TRANSMISSION		CAUTION - PRESSURIZED
	AMMETER OR VOLTMETER		GREASE		
	AIR PRESSURE		OIL		
	LOW AIR PRESSURE		HYDRAULIC OIL		
	ENGINE RPM		HOURS		
	BRAKE		NEUTRAL		

## SECTION 3 - SYMBOL IDENTIFICATION AND METRIC CONVERSION



















### INTERNATIONAL HIGHWAY SYMBOLS

The following symbols may also appear in a yellow square  instead of a red triangle.

	road bends		uneven road
	dangerous bend		ridge
	double bend		dip
	dangerous descent		slippery road
	steep ascent		loose gravel
	carriageway narrows		no entry for power driven vehicles
	carriageway narrows		no entry for vehicles exceeding width
	"end of priority" sign		no entry for vehicles exceeding length
	oncoming traffic has priority		falling rocks
	priority over oncoming traffic		pedestrian crossing
	swing bridge		road work
	road leads onto quay or river bank		light signals



### SECTION 3 - SYMBOL IDENTIFICATION AND METRIC CONVERSION

	two-way traffic		no entry for vehicles exceeding weight
	other dangers		no entry for vehicle axle weight exceeding
	level crossing		no u-turn
	level crossing		no turn direction shown
	no entry		no entry for power driven vehicles
	closed to all vehicles in both directions		
	Intersection, user must give way		
	intersection user must give way		
	Intersection user must give way		
	"give way" sign		
	stop sign (new)		
	stop sign (old)		
	"priority road" sign		

### SECTION 3 - SYMBOL IDENTIFICATION AND METRIC CONVERSION

TO CONVERT OMREGNET FRA	INTO TIL	MULTIPLY BY MULTIPLICERES MED
bar	pound/sq.in	14.50
bar	kilopascals	100.
centigrade	fahrenheit	$(C^{\circ} \times 9/5) + 32$
centimeters	inches	0.3937
centimeters	millimeters	10.0
circumference	radians	6.283
cubic centimeters	cu.inches	0.06102
degrees (angle)	radians	0.01745
degrees/sec.	revolutions/min	0.1667
feet	meters	0.3048
feet/min	meters/min.	0.3048
foot-pounds	kg-meters	0.1383
gallons	liters	3.785
Hertz	vibrations/min.	60.
horsepower	kilowatts	0.7457
inches	centimeters	2.540
inches	millimeters	25.40
kilograms	pounds	.250
kilogram meters	-pounds	7.233
kilopascal	pounds/sq.in	0.1450
kilopascal	bars	0.01
kilowatts	horsepower	1.341
liters	gallons (U.S. liq)	0.2642
liters	pints (U.S. liq)	2.113
liters	quarts (U.S. liq)	1.057
meters	feet	3.281
meters	inches	39.37
meters/min	feet/sec	0.05468
miles/hr	kms/hr	1.609
millimeters	inches	0.03937
Newtons	pounds	4.448
Newton-meter	pound-feet	0.737
pints (liq)	liters	0.4732
pounds	kilograms	0.4536
pounds	Newtons	0.225
pound feet	Newton-meter	1.356
pounds/ft.	kgs/meter	1.488
pounds/sq in	bars	0.06895
pounds/sq in	kilopascals	6.895
quarts (liq)	liters	0.9463
radians	degrees	57.30
radians/sec	revolutions/min	9.549
revolutions/min	degrees/sec	6.0
revolutions/min	radians/sec	0.1047
temperature (°C) + 17.78	temperature (°F)	1.8
temperature (°F) - 32	temperature (°C)	5/9
tons (short)	tons (metric)	0.9078
vibrations/min	Hertz	0.0167

## SECTION 4 - OPERATING INSTRUCTIONS

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### **WARNING**

**Improper maintenance can be hazardous.**

**Read and understand SECTION 1 - SAFETY PRECAUTIONS AND GUIDELINES before you perform any maintenance, service or repairs.**

#### **SAFETY CHECKS - PRE-STARTING**

Before starting each day, in addition to the 10 hour daily routine maintenance, check or inspect the following items to ensure trouble free performance.

1. Check fluid lines, hoses, fittings, filler openings, drain plugs, pressure cap, muffler, safety shrouds and the area underneath the unit for signs of leakage or damage. Fix any leaks and correct any damage before operating.
2. Inspect the entire unit for damaged or missing parts and repair or replace parts as needed.
3. Check the fuel level. If necessary, fill the fuel tank with the proper fuel.
4. Check all fastening hardware to ensure it is adequately tightened and that none is missing or broken.
5. Do not operate faulty equipment.
6. Be observant of people and obstructions within the work area.
7. Read "INSTRUCTIONS FOR USE" for HONDA GX120K1 engine for BX-6WH or GX160K1 engine BX-8WH/12WH and model and this instruction manual for correct use and care.

Be sure the unit is correctly maintained in good operating condition.

## SECTION 4 - OPERATING INSTRUCTIONS

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### INSPECTION PRIOR TO OPERATION

#### CHECK ENGINE OIL

Before checking or refilling engine oil, be sure the compactor is located on a stable level surface.

Do not thread the gauge into oil filler to check oil level. If the oil level is below the lower level line on the dipstick, refill with the proper oil to the upper level (to the neck of oil filler). See section 9.

#### CHECK ENGINE FUEL

### WARNING

Do not refuel while smoking, near an open flame or other potential hazards.

#### CLEANING AIR CLEANER

### CAUTION

Do not run the engine without the air cleaner. Rapid engine wear will result.

**If the air cleaner element is seriously contaminated, engine start up failure, poor output or engine malfunction may result.**

Check Air Cleaner to be sure it is clean and not contaminated. If cleaning is required, perform the following steps:

Remove the wing nut, air cleaner cover, outer urethane foam element and inner paper element. Wash the foam element in a household cleaner and warm water. Rinse thoroughly and allow to dry completely. Saturate the foam element in engine oil and squeeze out the excess oil. Tap the inner paper element lightly on a hard surface or blow out with compressed air from the inside. Do not use a brush to clean the element. Wipe out the air cleaner cover with a clean damp cloth and reassemble the air cleaner.

#### CHECK EACH PART FOR LOOSE OR BROKEN BOLTS AND NUTS

Tighten loose bolts and nuts, if any. Check each part for fuel or oil leak. Replace broken or damaged parts, if any, with new ones.

## SECTION 4 - OPERATING INSTRUCTIONS

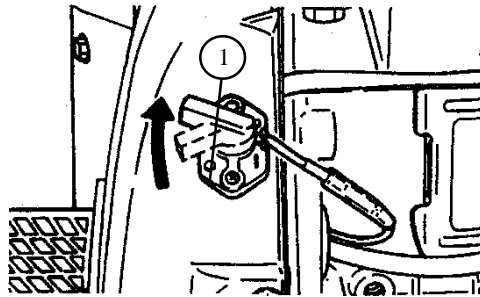
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### OPERATION

#### STARTING (HONDA ENGINE)

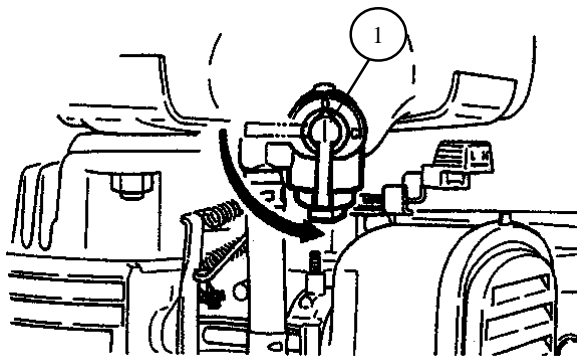
1. Turn the STOP SWITCH (1, Figure 4-1) clockwise to the position "I" (ON).

Figure 4-1



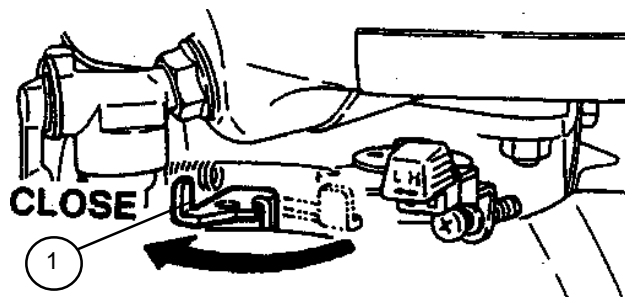
2. Open the FUEL COCK (1, Figure 4-2) located under the fuel tank.

Figure 4-2



3. Close the CHOKE LEVER (1, Figure 4-3). If the engine is cold or the ambient temperature is low, close the Choke Lever (1, Figure 4-2) fully. If the engine is warm or the ambient temperature is high, open the Choke Lever half-way, or keep it fully open.

Figure 4-3



## SECTION 4 - OPERATING INSTRUCTIONS

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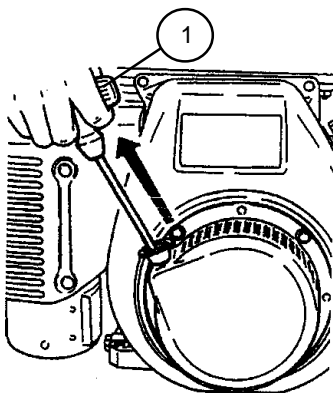
4. Position THROTTLE LEVER (Figure 4-5) to “LOW” speed position.

### CAUTION

Avoid fully pulling out the rope. Return the Handle to its original position.

5. Pull the STARTER HANDLE (1, Figure 4-4) of RECOIL STARTER slowly until resistance is felt. This is the “COMPRESSION” point. Return the Handle to its original position and pull swiftly. After starting the engine, allow the Starter Handle to return to its original position while still holding the Handle.

**Figure 4-4**



After the engine starts, set the Throttle Lever (Figure 4-5) at the low speed position “LOW” and warm it up without load for a few minutes. Fully open CHOKE LEVER (1, Figure 4-3) gradually.

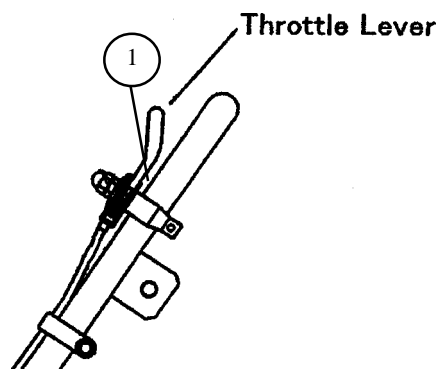
## SECTION 4 - OPERATING INSTRUCTIONS

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### RUNNING

1. Shift the Throttle Lever (Figure 4-5) to "HIGH" speed position quickly. Vibration starts and the unit moves forward..

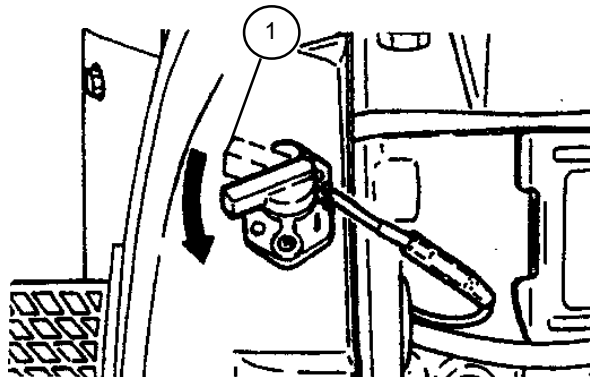
**Figure 4-5**



### STOPPING (HONDA ENGINE)

1. Shift the throttle lever (Figure 4-5) to "LOW" speed position.
2. Allow the engine to run at low speed for 2-3 minutes before stopping.
3. Turn the STOP SWITCH (1, Figure 4-6) counterclockwise to the position "O"(OFF).

**Figure 4-6**

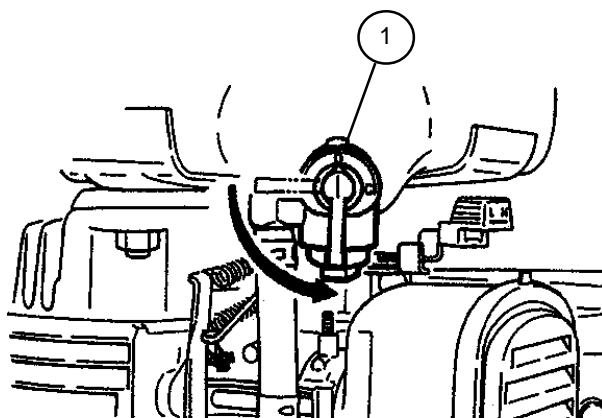


## SECTION 4 - OPERATING INSTRUCTIONS

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4. Close the fuel cock (1, Figure 4-7).

Figure 4-7



### **⚠ CAUTION**

Do not stop engine suddenly while running at high speed

#### LONG STORAGE

### **⚠ CAUTION**

Discharge fuel (No Smoking !)

1. Remove the strainer cup of the fuel cock, place the strainer over a container and open the fuel cock to discharge fuel from the fuel tank. Remove the carburetor float chamber bolt from the bottom and discharge fuel from the carburetor
2. Close the fuel cock.
3. Change the engine oil.
4. Remove the spark plug, pour about 5 cc (0.2 ounces) of the engine oil into the cylinder, slowly pull the starter handle of the recoil starter 2 or 3 times, and re-install the spark plug.
5. Slowly pull the recoil starter handle until resistance is felt and leave it in that position.
6. Clean the unit and engine.
7. Store the unit and engine indoors in a well-ventilated, low humidity area. Use the cover to avoid dirt, etc. if storage will be for a long time.

### **⚠ CAUTION**

Always stop the engine and allow to cool down before covering the unit.



## SECTION 5 - FUEL AND LUBRICATION SPECIFICATIONS

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### GENERAL INFORMATION

Lubrication is an essential part of preventive maintenance, affecting to a great extent the useful life of the unit. Different lubricants are needed and some components in the unit require more frequent lubrication than others.

Specific recommendations of brand and grade of lubricants are not made here due to regional availability, operating conditions, and the continual development of improved products. Where questions arise, refer to the requirements and specifications in the engine manufacturer's manual.

All oil levels are to be checked with the machine parked on a level surface, and while the oil is cold, unless otherwise specified.

TABLE 5-1 FLUID CAPACITIES

FUEL/OIL	APPROXIMATE CAPACITY
ENGINE FUEL (Unleaded Gasoline) _____	BX-6WH 2.6 Quarts (2.5 l) BX-8WH/12WH 3.8 Quarts (3.6 l)
VIBRATORY SHAFT CASE ENGINE OIL (SAE 10W30) _____	BX-6WH 0.21 Quarts (0.2 l) BX-8WH/12WH 0.63 Quarts (0.6 l)
ENGINE OIL (SAE 10W30) _____	GX120K1 0.63 Quarts (0.6 l) GX160K1 0.63 Quarts (0.6 l)

### CHECK FUEL ⚠ WARNING



**Fuel is flammable. May cause injury and property damage.**

**Shut down the engine, extinguish all open flames and do not smoke while filling the fuel tank.**

**Always wipe up any spilled fuel.**

1. Stop the engine and open the fuel tank cap.
2. Use the automobile unleaded gasoline only.
3. Close the fuel cock before filling the fuel tank.
4. When filling the fuel tank, always use the fuel filter.
5. Wipe off any spilled fuel before starting the engine.

## SECTION 6 - INITIAL BREAK-IN MAINTENANCE

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### **⚠ WARNING**



**Improper maintenance can be hazardous.**

**Read and understand SECTION 1 - SAFETY PRECAUTIONS AND GUIDELINES before you perform any maintenance, service or repairs.**

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### **ENGINE OIL**

Drain the engine oil after the first 20 hours of operation. Fill with the correct amount of the recommended oil. Check the oil level with the oil filler cap/dip stick. See Section 9.

### **⚠ WARNING**



**Hot oil and/or components can burn.**

**Oil must be at normal operating temperature when draining.**

**Avoid contact with hot oil or components.**

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## **SECTION 6 - INITIAL BREAK-IN MAINTENANCE**

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### **GENERAL MAINTENANCE**

Perform the following maintenance checks after the initial break in period.

1. Check Bolts and Nuts for looseness. Tighten it if necessary.
2. Check for fuel and oil leak.
3. Keep the RUBBER BUFFER away from oil and fuel.
4. Check the V-Belt for wear, damage and cracks. If necessary, replace the belt with new one.
5. Please refer to "Owners Manual" for HONDA engine GX120(BX-6WH) or GX160 (BX-8WH and 12WH) regarding engine maintenance.

## SECTION 7 - TROUBLE SHOOTING - GENERAL MAINTENANCE

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### TROUBLESHOOTING

#### 1) Engine fails to start.

- |                            |   |
|----------------------------|---|
| a) Spark plug is defective | Clean or replace.   |
| b) Air in the fuel system. | Bleed air completely.   |
| c) Fuel tank is empty.     | Fill Tank   |
| d) Carburetor is clogged.  | Clean or replace, if necessary.                               |
| e) Excessive fuel.         | Open fuel drain cock and drain excess fuel. Clean spark plug. |

#### 2) Engine runs irregularly.

- |                                    |   |
|------------------------------------|---|
| a) Fuel line sucks air.            | Retighten the fuel pipe joints and bleed air.         |
| b) Air cleaner is clogged.         | Clean air cleaner or replace element.                 |
| c) Engine stalls during operation. | Clean fuel system and retighten the fuel pipe joints. |
| d) Low compression.                | Replace head gasket or retighten spark plug.          |

#### 3) Machine fails to vibrate.

- |                                     |                                    |
|-------------------------------------|------------------------------------|
| a) Incorrect setting RPM of engine. | Adjust.                            |
| b) Throttle cable is slacked.       | Adjust.                            |
| c) Centrifugal clutch is slipped.   | Overhaul or replace, If necessary. |
| d) Belt is slipped.                 | Adjust or replace, If necessary.   |

#### 4) The travelling is bad or the vibration is diffuse.

- |                                     |                                       |
|-------------------------------------|---------------------------------------|
| a) Incorrect setting RPM of engine. | Adjust.                               |
| b) Air cleaner is clogged.          | Clean air cleaner or replace element. |
| c) Centrifugal clutch is slipped.   | Overhaul or replace, If necessary.    |
| d) Belt is slipped.                 | Adjust or replace, If necessary.      |

## SECTION 7 - TROUBLE SHOOTING - GENERAL MAINTENANCE

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### GENERAL MAINTENANCE

1. Engine RPM is adjusted to: 3,600 - 3,700 rpm (With load ).
2. Check Bolts and Nuts for looseness. Tighten it if necessary.
3. Check for fuel and oil leak.
4. Keep the RUBBER BUFFER away from oil and fuel.
5. Check the V-Belt for wear, damage and cracks. If necessary, replace with a new belt.
6. Please refer to "Owners Manual" for HONDA engine GX120 or GX160 for maintenance instructions for the engine on your machine.

### AIR CLEANER

Keep the Air Cleaner Filter clean. Take out the outer urethane foam and inner element. Wash the element in kerosene or diesel fuel. Saturate it in a mixture of 3 parts kerosene or diesel fuel and 1 part engine oil. Shake off excessive oil and reinstall. Wash the air cleaner case using kerosene. After cleaning it up, apply the engine oil on the inner part of the case.

### CAUTION

If the air cleaner filter is seriously contaminated, the start-up failure, poor output and malfunctions of the engine may result.

## SECTION 8 - 10 HOUR OR DAILY ROUTINE MAINTENANCE

---

Contents	Page
ENGINE OIL _____	1
AIR CLEANER _____	1
FASTENING HARDWARE _____	2

---

### **⚠ WARNING**



**Improper maintenance can be hazardous.**

**Read and understand SECTION 1 - SAFETY PRECAUTIONS AND GUIDELINES before you perform any maintenance, service or repairs.**

---

It is recommended that the following steps be performed at the beginning and end of each 8 to 10 hour shift or daily, whichever comes first.

#### **ENGINE OIL**

Check the engine's oil level at the start of each day and maintain it to the full mark on the dipstick. Insert the dipstick and check the full mark on the dipstick. See Section 9.

#### **AIR CLEANER**

### **⚠ WARNING**

**Never use gasoline or low flash point solvents to clean the filter. a fire or explosion may result.**

---

### **⚠ CAUTION**

**If the air cleaner element is seriously contaminated, start-up failure, poor output and engine malfunction may result.**

**Never run the engine without the air cleaner. Rapid engine wear will result.**

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If the machine is operating in a dusty environment, check the air cleaner daily. Keep the Air Cleaner Filter clean.

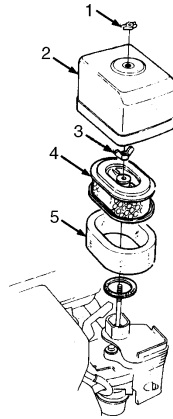
To Clean the Air Cleaner:

1. Remove the wing nut (1, Figure 8-1) and air cleaner cover (2).

## SECTION 8 - 10 HOUR OR DAILY ROUTINE MAINTENANCE

---

**Figure 8-1**



2. Remove wing nut (3, Figure 8-1) and the element assembly.
3. Separate foam filter (5, Figure 8-1) from paper element (4). Check both elements for holes or tears and replace if necessary.
4. To clean the foam element wash in a solution of household detergent and warm water, then rinse thoroughly or wash in a nonflammable solvent. Allow to dry thoroughly. Soak the element in clean engine oil and squeeze out excess oil. Too much oil will cause engine to smoke on initial start-up.
6. To clean the paper element, tap lightly on a hard surface to remove dirt or blow out with compressed air from the inside out. Do not use a brush to remove dirt. This can push dirt into the fibers. Replace the filter if it is excessively dirty.
7. Wipe out the inside of the cover with a damp cloth.
8. Reassemble the air cleaner.

### **FASTENING HARDWARE**

Check all fastening hardware to ensure it is all adequately tightened and that none is missing or broken.

## SECTION 9 - 50 HOUR OR WEEKLY ROUTINE MAINTENANCE

Contents	Page
ENGINE OIL _____	1
CHANGE ENGINE OIL _____	2

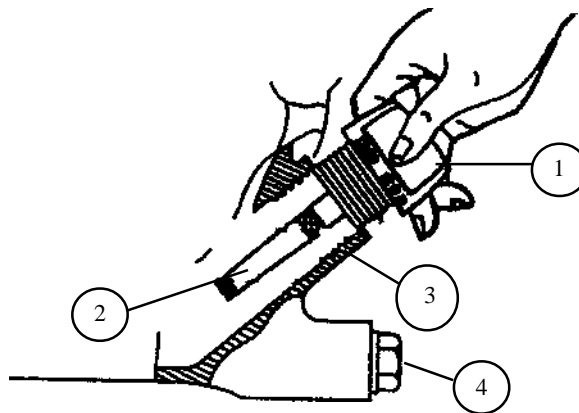
### CHECK ENGINE OIL

## ⚠ CAUTION

Running the engine with insufficient oil can cause serious engine damage.  
Be sure machine is on a firm level surface and stopped.

1. Place the machine on a stable level surface and stop the engine
2. Remove oil filler cap/dipstick (1, Figure 9-1) and wipe off the dipstick (2)

Figure 9-1



3. Place the dipstick back into the engine but do not screw it in. Remove the dipstick and check the oil level.
4. If the level is low, fill to the top of the oil filler neck (3, Figure 9-1) with the recommended oil.
5. Place the oil filler cap/dipstick into the engine and screw it into place. Wipe up any excess oil.



## SECTION 9 - 50 HOUR OR WEEKLY ROUTINE MAINTENANCE

---

### CHANGE ENGINE OIL

## CAUTION

**Running the engine with insufficient oil can cause serious engine damage.  
Be sure machine is on a firm level surface and stopped.**

---

1. Stop the engine, loosen and remove the drain plug (4, Figure 9-1), drain the oil and reinstall the drain plug before refilling with oil.

2. Fill to the top of the oil filler neck (3, Figure 9-1) with the recommended oil. Install the filler cap/dipstick (2, Figure 9-1).

Always use the best grade of fresh, clean oil. Contaminated oil, poor quality oil and shortage of oil will cause damage to engine or shorten the engine life.

ENGINE OIL (SAE 10W30)

0.63Quarts(0.60liters) BX-6WH

0.63Quarts(0.60liters) BX-8WH and BX-12WH

Use class SE, SF (API classification ) or higher grade oil.

Initial oil change ..... After 20 hours of operation.

Thereafter ..... Every 50 hours of operation.

## SECTION 10 - 100 HOUR OR MONTHLY ROUTINE MAINTENANCE

---

### **NOTE**

***\* No 100 Hour or Semi-Annual Routine Maintenance is required.\****

## SECTION 11 - 250 HOUR OR QUARTERLY ROUTINE MAINTENANCE

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### **NOTE**

***\* No 250 Hour or Semi-Annual Routine Maintenance is required.\****

## SECTION 12- 500 HOUR OR SEMI-ANNUAL ROUTINE MAINTENANCE

---

### ***NOTE***

***\* No 500 Hour or Semi-Annual Routine Maintenance is required. \****

## SECTION 13 - 1000 HOUR OR ANNUAL ROUTINE MAINTENANCE

---

### **NOTE**

***\* No 1000 Hour or Annual Routine Maintenance is required.\****

## **SECTION 14 - ROUTINE ADJUSTMENTS**

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### **ENGINE RPM**

Adjust the engine rpm per specifications and productions in the engine manual.

### **V-BELT TENSION**

Adjust the v-belt tension so that a light pressure on the belt between the two pulleys deflects the belt 3/16 to 3/8 inch (5 to 10 mm)

## SECTION 15 - MISCELLANEOUS AND OPTIONAL EQUIPMENT

---

### ***NOTE***

***\* No Miscellaneous or Optional Equipment \****

## SECTION 16 - SCHEMATICS

---

### ***NOTE***

***\* No Schematics are necessary for this unit. \****



## SECTION 17 - SPECIFICATIONS

Contents	Page
SPECIFICATIONS	1
ENGINE RPM	1

### SPECIFICATIONS

MODEL	BX-6WH
WEIGHT	150 pounds (70 kg)
VIBRATION FREQUENCY	5500 vpm (92 Hz)
CENTRIFUGAL FORCE	2650pounds (10.3 kN)
TRAVEL SPEED	82-89 feet per minute (25-27 mpm)
OVERALL LENGTH	38.6 inches (980 mm)
OVERALL HEIGHT	37.8 inches (960 mm)
PLATE SIZE (W x L)	16 x 21 inches (400 x 525 mm)
ENGINE (MAKE & MODEL)	Honda GX120K1 air cooled
ENGINE HORSEPOWER	4.0HP (2.9 kW)
FUEL TANK CAPACITY	2.6 quarts (2.5 l)
FUEL	Automotive gasoline
STARTING SYSTEM	Recoil starter
WATER TANK CAPACITY	9.0 quart (8.5 l)

MODEL	BX-8WH
WEIGHT	195 pounds (90 kg)
VIBRATION FREQUENCY	6000vpm (100 Hz)
CENTRIFUGAL FORCE	3300pounds (14.7 kN)
TRAVEL SPEED	75-82 feet per minute (23-25 mpm)
OVERALL LENGTH	40.9 inches (1040 mm)
OVERALL HEIGHT	37.8 inches (960 mm)
PLATE SIZE (W x L)	19 x 23 inches (480 x 585)
ENGINE (MAKE & MODEL)	Honda GX160K1 air cooled
ENGINE HORSEPOWER	5.5 HP (4.0 kW)
FUEL TANK CAPACITY	3.8 quarts (3.6 l)
FUEL	Automotive gasoline
STARTING SYSTEM	Recoil starter
WATER TANK CAPACITY	9.0 quart (8.5 l)

MODEL	BX-12WH
WEIGHT	245 pounds (110 kg)
VIBRATION FREQUENCY	6500 vpm (108 Hz)
CENTRIFUGAL FORCE	4630 pounds (20.6 kN)
TRAVEL SPEED	72-75 feet per minute (22-23 mpm)
OVERALL LENGTH	44.0 inches (1120 mm)
OVERALL HEIGHT	37.8 inches (960 mm)
PLATE SIZE (W x L)	22 x 26 inches (550 x650 mm)
ENGINE (MAKE & MODEL)	Honda GX160K1 air cooled
ENGINE HORSEPOWER	5.5 HP (4.0 kW)
FUEL TANK CAPACITY	3.8 quarts (3.6 l)
FUEL	Automotive gasoline
STARTING SYSTEM	Recoil starter
WATER TANK CAPACITY	9.0 quart (8.5 l)

### ENGINE RPM SETTINGS

#### NOTE

*For engine rpm settings, refer to the engine manual.*

# **SECTION 18 - PARTS MANUAL**

## **BX-6WH/8WH/12WH VIBRATORY PLATE COMPACTORS**

## TABLE OF CONTENTS

### BX-6WH/8WH/12WH

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## ENGINE AND VIBRATION UNIT

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## ROLLOVER CAGE AND WATER TANK

<b>B</b>	
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## CARRYING CART, TOOLS AND DECALS

<b>C</b>	
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## INTERNAL BREAKDOWNS

<b>I</b>	
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Honda Engine - BX-8WH/12WH (58836446) .....	I.2.2

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<b>X</b>	
Numeric Index .....	X.1.2

***\*\*Always use Ingersoll-Rand Replacement parts!\*\****

## STANDARD ABBREVIATIONS

AC	Alternating Current	Ref	Reference
A/R	As Required	RH	Right Hand
ARC	Authorized Rebuilt Component	RHSS	Round Head SelfTapping Screw
Assy	Assembly	ROPS	Roll-Over Protection System
BHCS	Button Head Cap Screw	RPM	Revolutions Per Minute
Cu Yd	Cubic Yard	SAE	Society of Automotive Engineers
Cyl	Cylinder	Sec	Section
DC	Direct Current	SFH	Slotted Fillister Head
Dia	Diameter	SHCS	Socket Head Cap Screw
Eff	Effective	SMV	Slow Moving Vehicle
FHCS	Flat Head Cap Screw	S/N	Serial Number
F-N-R	Forward-Neutral-Reverse	SPST	Single Pole/Single Throw
FOPS	Falling Object Protection System	S.T.	Self-Tapping
F/P	Fork Positioning	Std	Standard
Gr	Grade	Str	Straight
HHCS	Hex Head Cap Screw	Sw	Swivel
HHMS	Hex Head Machine Screw	Tach	Tachometer
HSBHCS	Hex Socket Button Head Cap Screw	Temp	Temperature
ID	Inside Diameter	Thd	Thread
LH	Left Hand	Thk	Thick
M	Metric	Typ	Typical
MIK	Maintenance Interval Kit	UNC	Unified Coarse
mm	Millimeter	UNF	Unified Fine
Nat Asp	Naturally Aspirated	Univ	Universal
Neg	Negative	Var	Variable
NSS	Not Sold Separately	V	Volt
NSVA	Non Serviceable Assembly	VPM	Vibrations Per Minute
OD	Outside Diameter	Wgt	Weight
Pos	Positive	w/	With
PSI	Pounds per Square Inch	w/o	Without
Q/A	Quick-Attach	Wp	Weatherproof

Rev01/02/01

***\*\*Always use Ingersoll-Rand Replacement parts!\*\****

## RECOMMENDED SERVICE PARTS

BX-6WH/8WH/12WH Current Production

Quantities are for one unit having the operating hours listed below

### 0 to 1,000 operating hours

<u>Assembly</u>	<u>Description</u>	<u>Qty</u>	<u>CPN</u>
<b>Honda Engine (58836438)</b>			
	Fuel Filter (Effective with Engine S/N 2328483)+	1	54475744
	Fuel Filter (Prior to Engine S/N 2328483)+	1	54475751
	Fuel Tank Cap: (Effective with Engine S/N 2421923)	1	54475702
	Fuel Tank Cap: (Prior to Engine S/N 2421923)	1	54475694
	Oil Filler Cap: (Effective with S/N 2354643)	1	59243683
	Oil Filler Cap: (Prior to S/N 2354643)	1	54474309
	Air Cleaner Filter+	1	13221320
	Fuel Strainer Cup	1	54475355
	Starter Rope	1	59241992
	Starter Knob	1	59242479
	Stop Switch	1	59244145
<b>Honda Engine (58836446)</b>			
	Fuel Filter+	1	54475744
	Fuel Filler Cap	1	54475702
	Oil Filler Cap	1	59243683
	Air Cleaner Filter +	1	54475447
	Starter Rope	1	59244087
	Starter Knob	1	59244079
<b>Main Body Assembly</b>			
	V-belt (BX-6WH)	1	59843698
	V-belt (BX-8WH/12WH)	2	59831503
	Water Tank Cap	1	59838813

+ Designates parts that are to be replaced within the specified time intervals as stated in the maintenance schedule.

## RECOMMENDED SERVICE PARTS

BX-6WH/8WH/12WH Current Production

Quantities are for one unit having the operating hours listed below

### 1,000 to 3,000 operating hours

<u>Assembly</u>	<u>Description</u>	<u>Qty</u>	<u>CPN</u>
<b>Honda Engine (58836438)</b>			
	Recoil Starter: (Effective with S/N 2169650)	1	59243998
	Recoil Starter: (Prior to S/N 2169650)	1	54474861
<b>Honda Engine (58836446)</b>			
	Recoil Starter	1	59243998
<b>Controls</b>			
	Operating Handle (BX-6WH)	1	59188466
	Operating Handle (BX-8WH)	1	59188474
	Operating Handle (BX-12WH)	1	59188482
	Throttle Lever (BX-6WH/8WH)	1	59831511
	Throttle Lever (BX-12WH)	1	59830315
	Throttle Cable	1	59839100

+ Designates parts that are to be replaced within the specified time intervals as stated in the maintenance schedule.



## RECOMMENDED SERVICE PARTS

BX-6WH/8WH/12WH Current Production

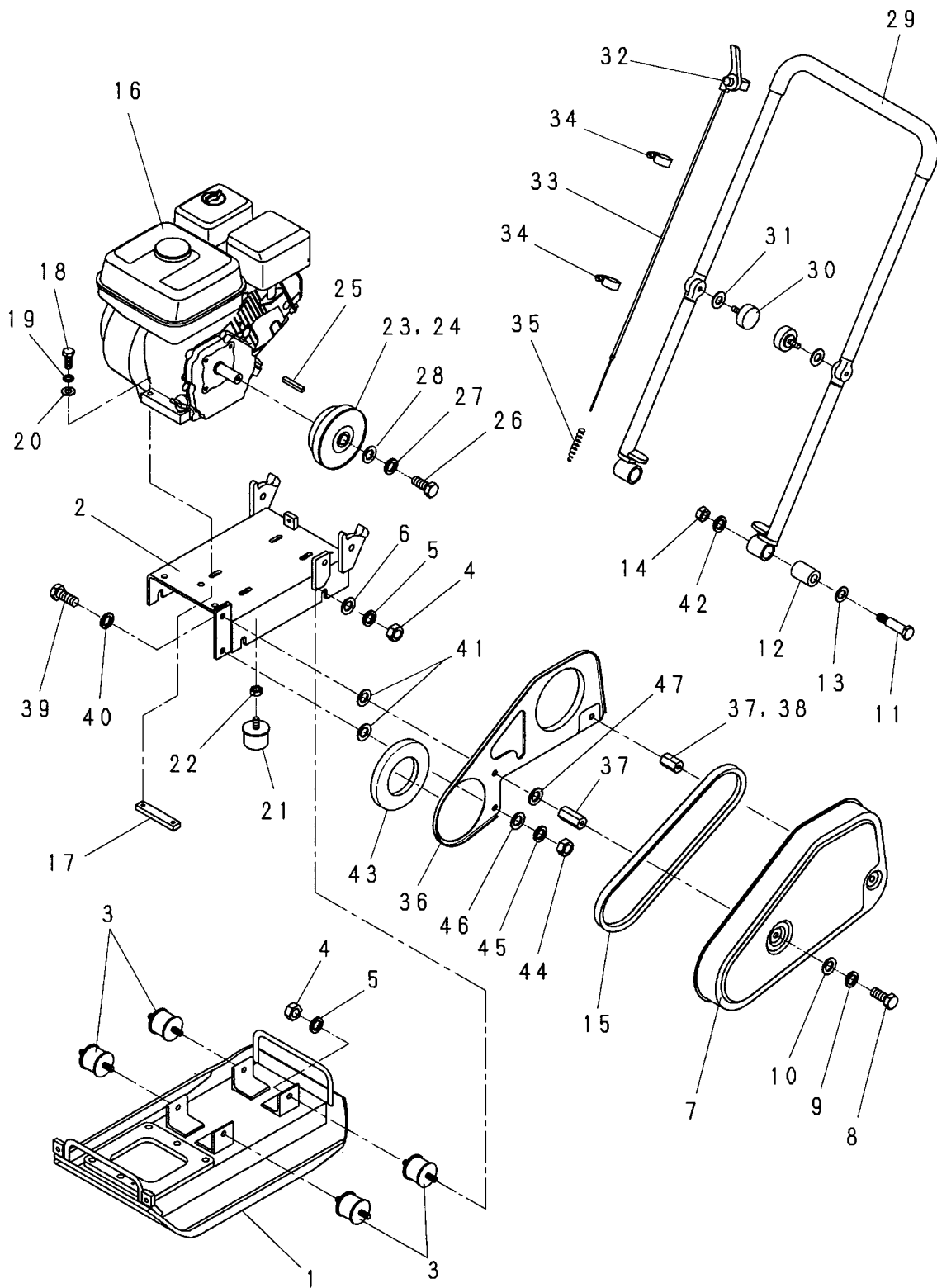
Quantities are for one unit having the operating hours listed below

### 3,000 operating hours plus

<u>Assemble</u>	<u>Description</u>	<u>Qty</u>	<u>CPN</u>
<b>Honda Engine (58836438)</b>			
	Muffler	1	54475645
	Intake Valve	1	59243907
	Exhaust Valve	1	54474671
<b>Honda Engine (58836446)</b>			
	Muffler	1	54475645
	Intake Valve	1	54474663
	Exhaust Valve	1	54474671

+ Designates parts that are to be replaced within the specified time intervals as stated in the maintenance schedule.

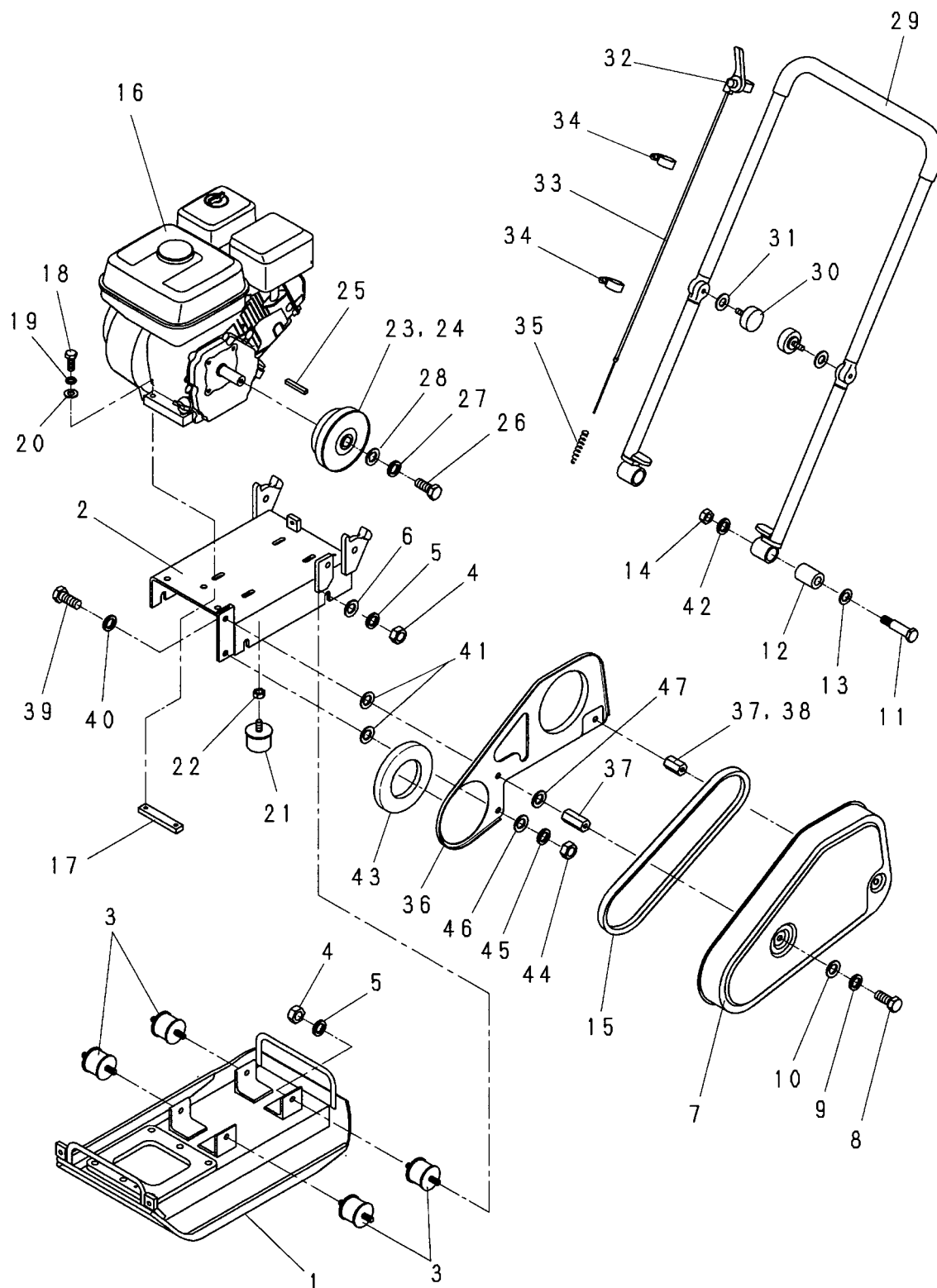
# VIBRATION PLATE, ENGINE, HANDLE AND CLUTCH



# VIBRATION PLATE, ENGINE, HANDLE AND CLUTCH

ITEM	COMM. NO.	DESCRIPTION	QTY	DIMENSIONS/NOTES
		BOM 13208434 & 13221395		
1	58836008	Vibration Plate (BX-6WH)	1	
-	59831289	Vibration Plate (BX-8WH)	1	
-	58836040	Vibration Plate (BX-12WH)	1	
2	58837766	Engine Bed (BX-6WH)	1	
-	58837758	Engine Bed (BX-8WH)	1	
-	58837840	Engine Bed (BX-12WH)	1	
3	59830893	Rubber Buffer (BX-6WH)	4	
-	59831313	Rubber Buffer (BX-8WH/12WH)	4	
4	58835943	Nut (BX-6WH)	8	M10
-	59831750	Nut (BX-8WH/12WH)	8	M12
5	59951632	Spring Washer (BX-6WH)	8	M10
-	59831743	Spring Washer (BX-8WH/12WH)	8	M12
6	59952291	Washer (BX-6WH)	4	10.5 x 25 x 3.2
-	59952473	Washer (BX-8WH/12WH)	4	12.5 x 35 x 3.2
7	13201876	Puller Cover (BX-6WH)	1	
-	13201900	Puller Cover (BX-8WH/12WH)	1	
8	59952242	Bolt	2	M10 x 25
9	59237305	Spring Washer	2	M10
10	59952291	Washer	2	10.5 x 25 x 3.2
11	59237297	Support Pin	2	
12	59237305	Rubber Buffer	2	
13	59830950	Washer	2	17 x 38 x 4.5
14	59839027	Nut	2	M14
15	59843698	V-belt (BX-6WH)	1	
-	59831503	V-belt (BX-8WH/12WH)	2	
<b>16</b>	<b>58836438</b>	<b>Honda Engine (BX-6WH)</b>	<b>1</b>	<b>See Breakdown - I.1</b>
-	<b>58836446</b>	<b>Honda Engine (BX-8WH/12WH)</b>	<b>1</b>	<b>See Breakdown - I.2</b>
17	59830968	Engine Nut	2	
18	59843722	Bolt	4	M8 x 40
19	59831925	Spring Washer	4	M8
20	59835371	Washer	4	M8
21	59830976	Rubber Stopper	1	
22	58835943	Nut	1	M10
23	58836198	Clutch Assembly (BX-6WH)	1	
-	58836214	Clutch Assembly (BX-8WH/12-WH)	1	
24	58836206	Clutch Shoe Assembly (BX-6WH)	1	
-	59836206	Clutch Shoe Assembly (BX-8WH/12WH)	1	
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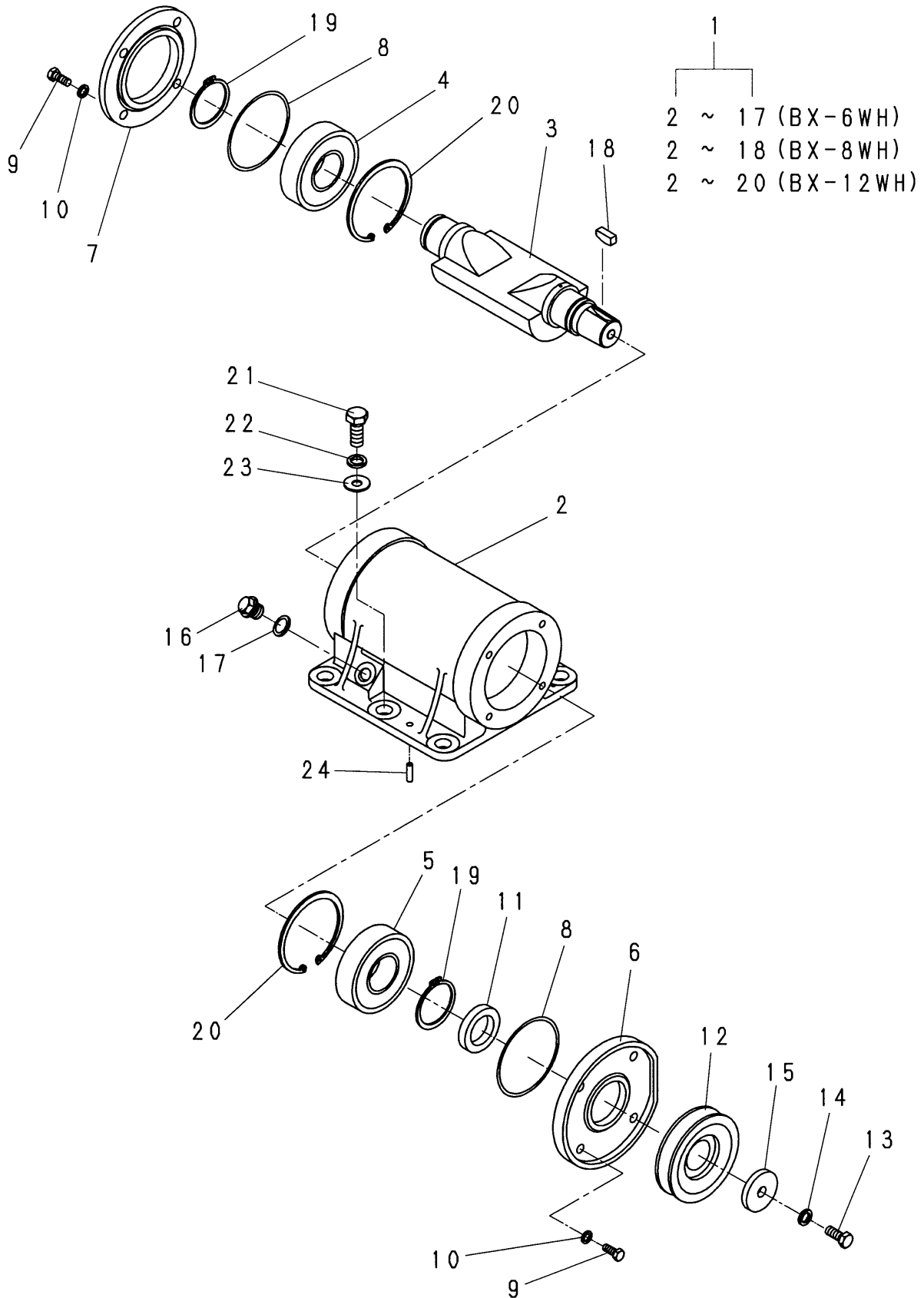
# VIBRATION PLATE, ENGINE, HANDLE AND CLUTCH (CONTINUED)



# VIBRATION PLATE, ENGINE, HANDLE AND CLUTCH (CONTINUED)

ITEM	COMM. NO.	DESCRIPTION	QTY	DIMENSIONS/NOTES
25	59831032	Key	1	
26	59953935	Bolt (BX-6WH)	1	M8 x 30
-	59832535	Bolt (BX-8WH/12WH)	1	M8 x 20
27	59831925	Spring Washer	1	M8
28	59831057	Washer	1	8.5 x 25 x 3.2
29	59188466	Operating Handle (BX-6WH)	1	
-	59188474	Operating Handle (BX-8WH)	1	
-	59188482	Operating Handle (BX-12WH)	1	
30	59188490	Handle Bolt	2	M10
31	59841106	Washer	2	M10
32	59831511	Throttle Lever (BX-6WH/8WH)	1	
-	59830315	Throttle Lever (BX-12WH)	1	
33	59839100	Throttle Cable	1	
34	59831529	Wire Band (BX-6WH/8WH)	1	
-	59830331	Wire Band (BX-12WH)	1	
35	59843649	Return Spring	1	
36	13201884	Inside Cover (BX-6WH)	1	
-	13201918	Inside Cover (BX-8WH/12WH)	1	
37	58837659	Boss (BX-6WH)	2	
-	58837782	Boss (A) - Rear (BX-8WH/12WH)	1	
38	58837790	Boss (B) - Front (BX-8WH/12WH)	1	
39	59952242	Bolt (BX-6WH)	2	M10 x 25
-	59832287	Bolt (BX-8WH/12WH)	2	M10 x 30
40	59951632	Spring Washer	2	M10
41	59237289	Washer (BX-8WH)	2	10.5 x 28 x 4.5
42	59832618	Spring Washer	2	M14
43	13202106	Rubber Cover (BX-8WH/12WH)	1	
44	58835943	Nut (BX-8WH/12WH)	1	M10
45	59951632	Spring Washer (BX-8WH/12WH)	1	M10
46	59841106	Washer (BX-8WH/12WH)	1	M10
47	59237289	Washer (BX-8WH/12WH)	1	10.5 x 28 x 4.5

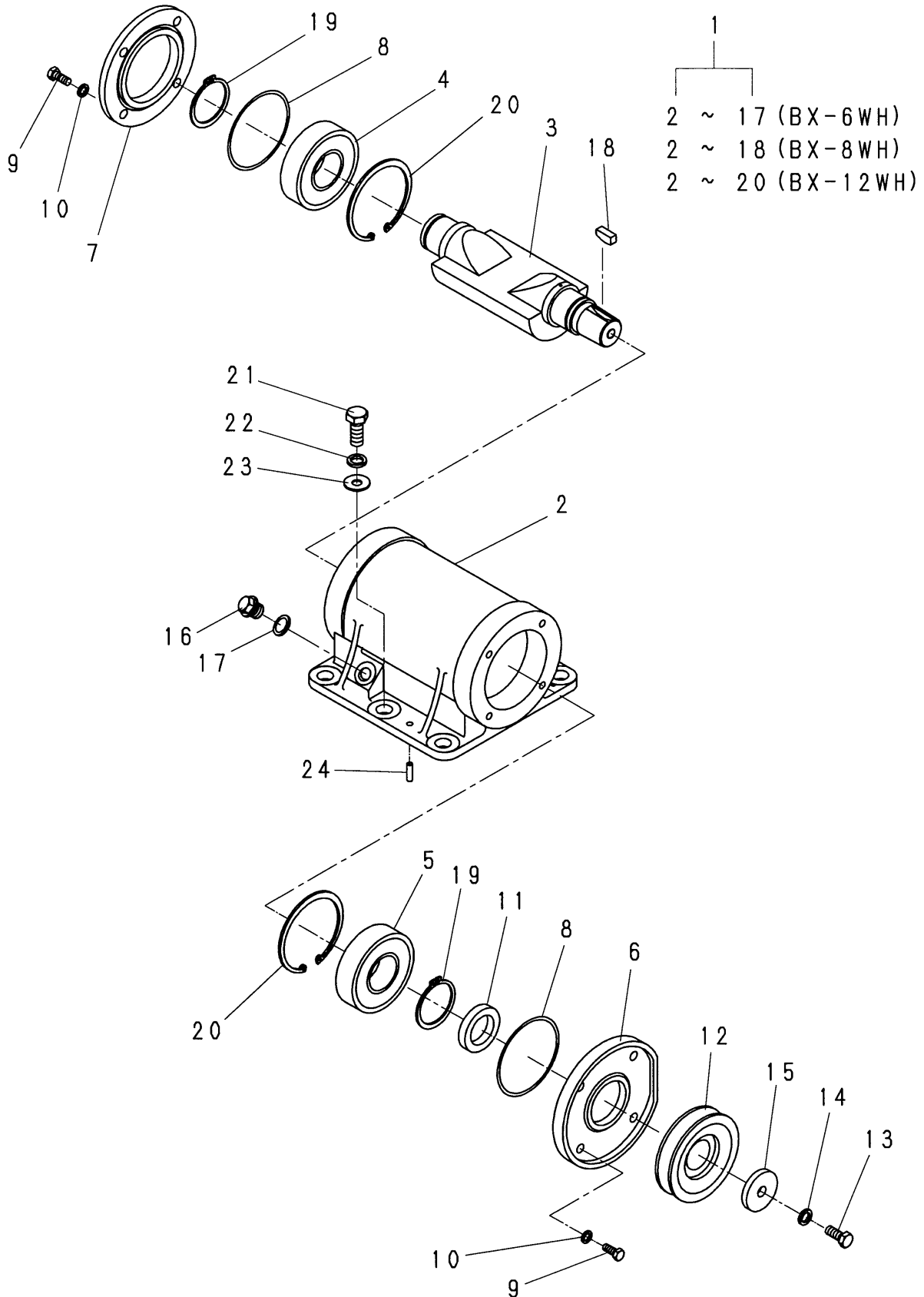
# VIBRATION UNIT ASSEMBLY



# VIBRATION UNIT ASSEMBLY

ITEM	COMM. NO.	DESCRIPTION	QTY	DIMENSIONS/NOTES
		BOM13208442		
1	59831073	Vibration Unit Assembly (Includes item 2 thru 17) (BX-6WH)	1	
-	59831438	Vibration Unit Assembly (Includes item 2 thru 18) (BX-8WH)	1	
-	59830661	Vibration Unit Assembly (Includes item 2 thru 20) (BX-12WH)	1	
2	59831065	-Shaft Case (BX-6WH)	1	
-	59831420	-Shaft Case (BX-8WH)	1	
-	59830455	-Shaft Case (BX-12WH)	1	
3	58837691	-Eccentric Shaft (BX-6WH)	1	
-	59839118	-Eccentric Shaft (BX-8WH)	1	
-	59830489	-Eccentric Shaft (BX-12WH)	1	
4	59831149	-Ball Bearing (BX-6WH)	1	
-	59839134	-Ball Bearing (BX-8WH/12WH)	1	
5	59831149	-Ball Bearing (BX-6WH)	1	
-	59839134	-Ball Bearing (BX-8WH)	1	
-	59830505	-Roll Bearing (BX-12WH)	1	
6	58837667	-Case Cover (A) (BX-6WH)	1	
-	59831446	-Case Cover (A) (BX-8WH/12WH)	1	
7	59831107	-Case Cover (B) (BX-6WH)	1	
-	59831453	-Case Cover (B) (BX-8WH/12WH)	1	
8	59831172	-O-ring (BX-6WH)	2	
-	59831479	-O-ring (BX-8WH/12WH)	2	
9	59952325	-Bolt	8	M8 x 25
10	59831925	-Spring Washer	8	M8
11	59831156	-Oil Seal (BX-6WH)	1	
-	59839142	-Oil Seal (BX-8WH/12WH)	1	
12	58837709	-Pulley (BX-6WH)	1	
-	59831461	-Pulley (BX-8WH)	1	
-	59830570	-Pulley (BX-12WH)	1	
13	59952242	-Bolt (BX-6WH)	1	M10 x 25
-	59832287	-Bolt (BX-8WH/12WH)	1	M10 x 30
14	59951632	-Spring Washer	1	M10
15	59236182	-Washer (BX-6WH)	1	10.5 x 40 x 6
-	59843656	-Washer (BX-8WH/12WH)	1	10.5 x 40 x 4.5
16	59831123	-Plug	1	
17	59831131	-Packing	1	
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# VIBRATION UNIT ASSEMBLY (CONTINUED)

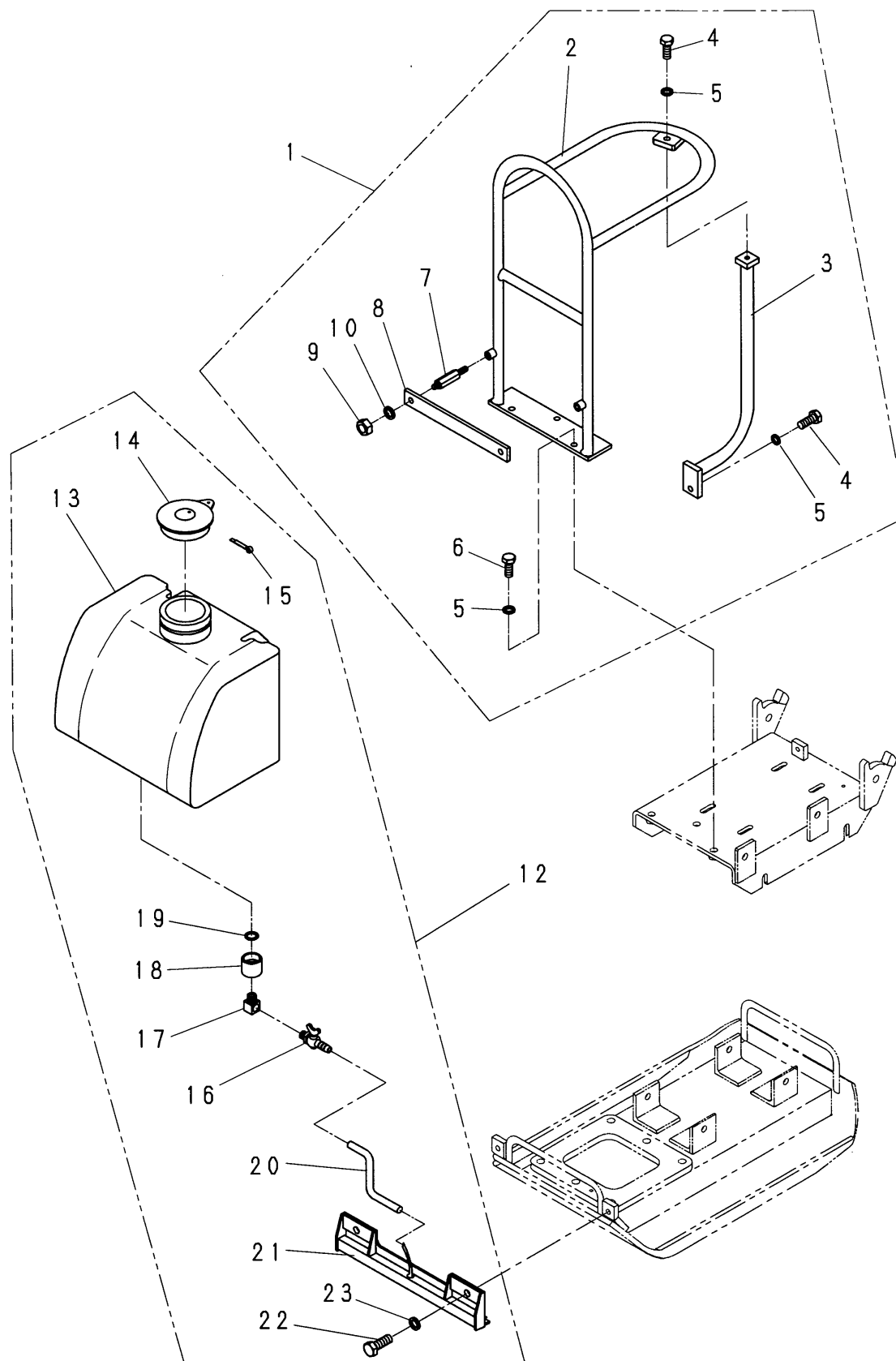




# VIBRATION UNIT ASSEMBLY (CONTINUED)

ITEM	COMM. NO.	DESCRIPTION	QTY	DIMENSIONS/NOTES
		ROM13208442		
18	59843714	-Woodruff Key (BX-8WH/12WH)	1	7 x 9 x 23
19	59837765	-Snap Ring (BX-12WH)	2	
20	59834465	-Snap Ring (BX-12WH)	2	
21	59839019	Bolt (BX-6WH/8WH)	6	M14 x 35
-	59839019	Bolt (BX-12WH)	8	M14 x 35
22	59832618	Spring Washer (BX-6WH/8WH)	6	M14
-	59832618	Spring Washer (BX-12WH)	8	M14
23	58837717	Washer (BX-6WH/8WH)	6	M14
-	58837717	Washer (BX-12WH)	8	M14
24	59831164	Spring Pin	2	5 x 18

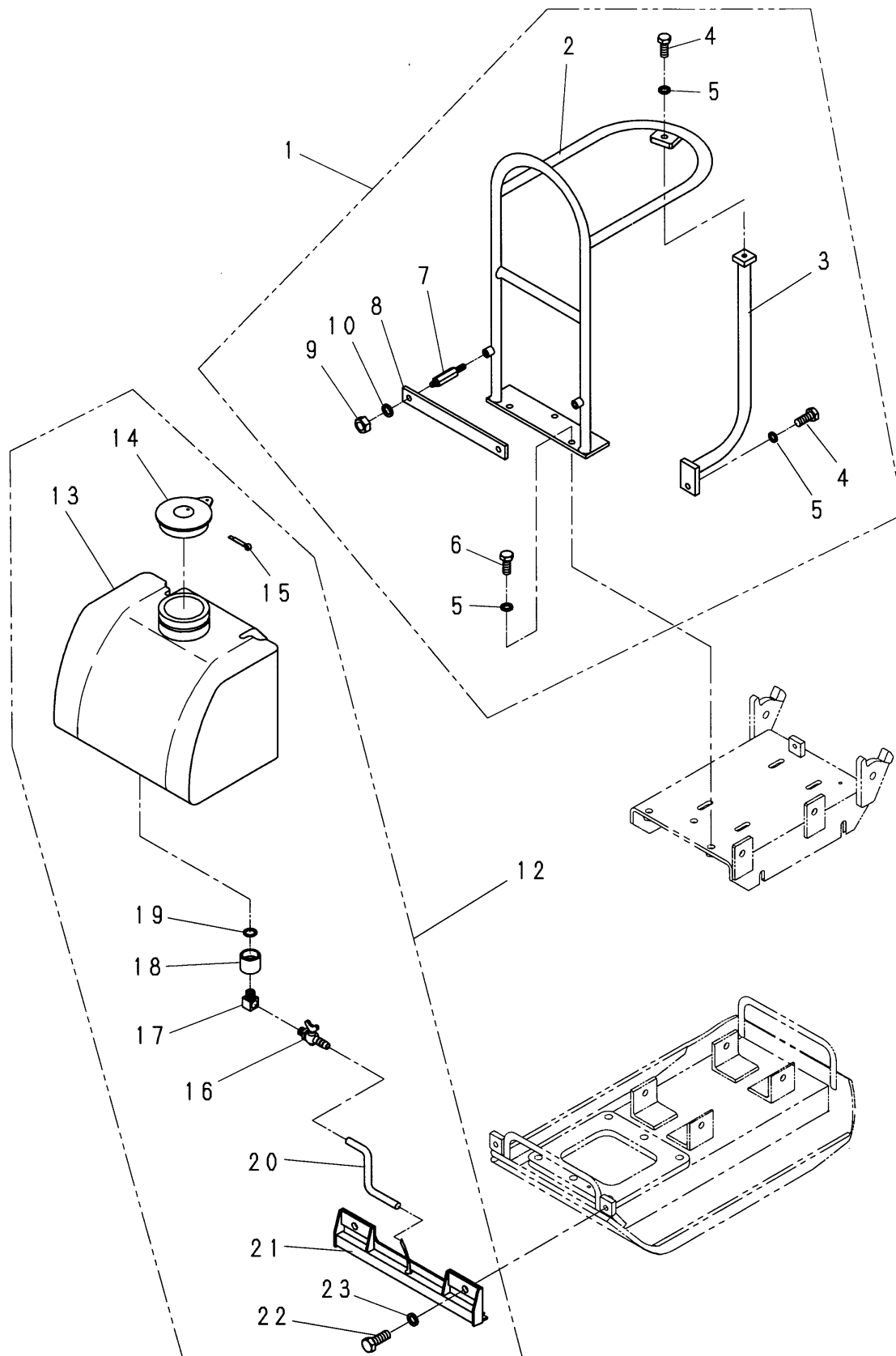
# ROLLOVER CAGE ASSEMBLY AND WATER TANK ASSEMBLY



# ROLLOVER CAGE ASSEMBLY AND WATER TANK ASSEMBLY

ITEM	COMM. NO.	DESCRIPTION	QTY	DIMENSIONS/NOTES
		BOM 13208459 & 13221403		
1	58836495	Cage Assembly (BX-6WH) (Includes Items 2 thru 10)	1	
-	58836503	Cage Assembly (BX-8WH/BX-12WH) (Includes Items 2 thru 10)	1	
2	58836461	-Rollover Cage (A) (BX-6WH)	1	
-	58836461	-Rollover Cage (A) (BX-8WH/12WH)	1	
3	58836107	-Rollover Cage (B) (BX-6WH)	1	
-	59836164	-Rollover Cage (B) (BX-8WH/12WH)	1	
4	59952535	-Bolt	2	M8 x 20
5	59831925	-Spring Washer	5	M8
6	59952325	-Bolt	3	M8 x 25
7	58836115	-Stud Bolt	2	
8	58836123	-Setting Plate	1	
9	59831917	-Nylon Nut	2	
10	59831925	-Spring Washer	2	
12	13201967	Water Tank Assembly (BX-6WH) (Includes Items 13 thru 23)	1	
-	13201975	Water Tank Assembly (BX-8WH) (Includes Items 13 thru 23)	1	
-	13201987	Water Tank Assembly (BX-12WH) (Includes Items 13 thru 23)	1	
13	13201892	-Water Tank	1	
14	59838813	-Water Tank Cap	1	
15	59831370	-Cotter Pin	1	
16	59831487	-Sprnkler Cock	1	
17	59951764	-Elbow	1	
18	58836073	-Tank Socket	1	
19	58836081	-Packing	1	
20	59831495	-Sprinkler Hose (BX-6WH)	1	
-	58836479	-Sprinkler Hose (BX-8WH)	1	
-	58836487	-Sprinkler Hose (BX-12WH)	1	
21	58836016	-Sprinkler Plate (BX-6WH)	1	
-	59831396	-Sprinkler Plate (BX-8WH)	1	
-	59830760	-Sprinkler Plate (BX-12WH)	1	
22	59831826	-Bolt (BX-6WH)	2	M10 x 20
-	59831552	-Bolt (BX-8WH)	4	M8 x 16
-	59831552	-Bolt (BX-12WH)	5	M8 x 16
(Continued on next page)				

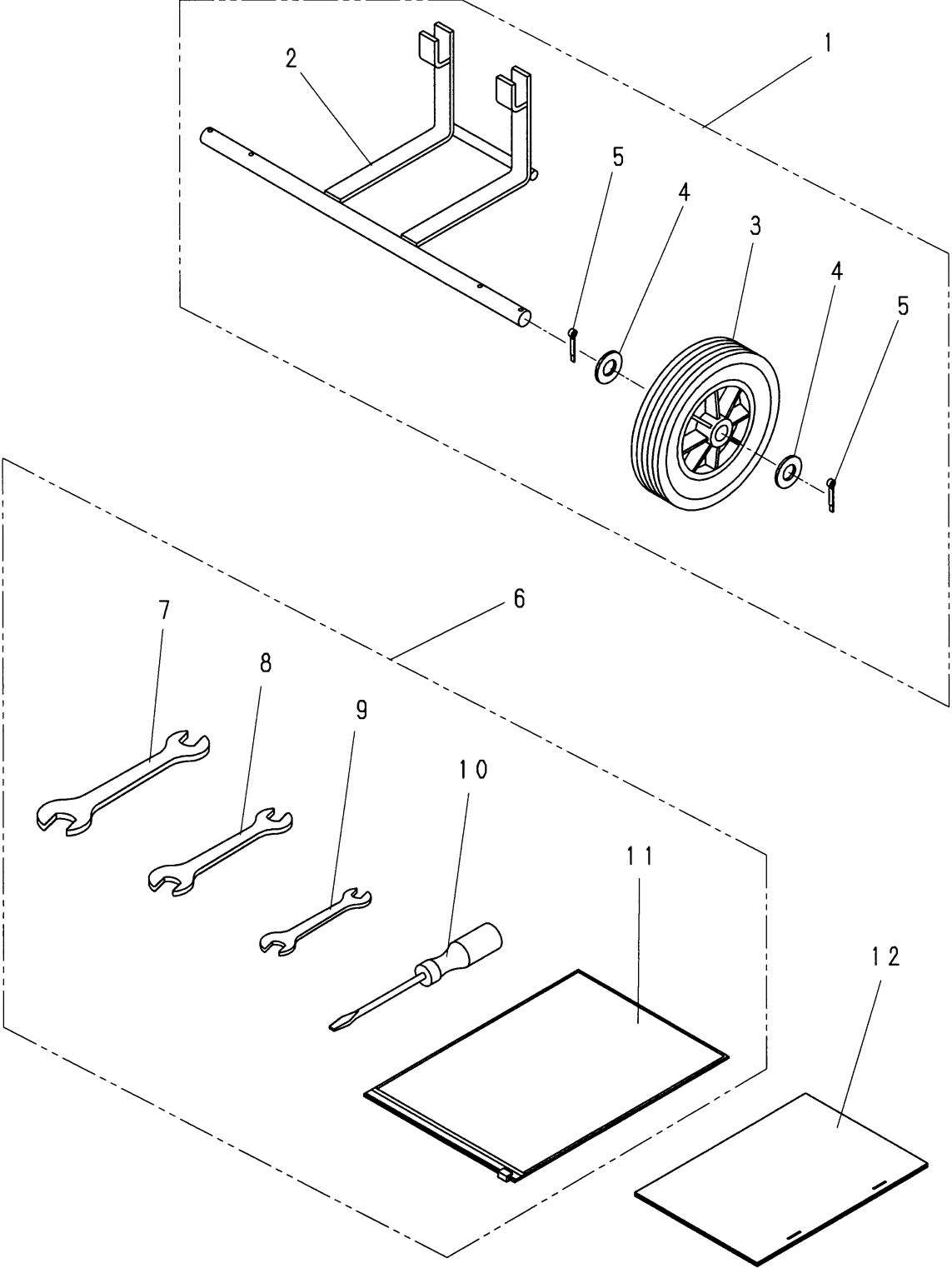
# ROLLOVER CAGE ASSEMBLY AND WATER TANK ASSEMBLY (CONTINUED)



# ROLLOVER CAGE ASSEMBLY AND WATER TANK ASSEMBLY (CONTINUED)

ITEM	COMM. NO.	DESCRIPTION	QTY	DIMENSIONS/NOTES
		BOM 13208459 & 13221403		
22	59951632	-Spring Washer (BX-6WH)	2	M10
-	59831925	-Spring Washer (BX-8WH)	4	M8
-	59831925	-Spring Washer (BX-12WH)	5	M8 x 20

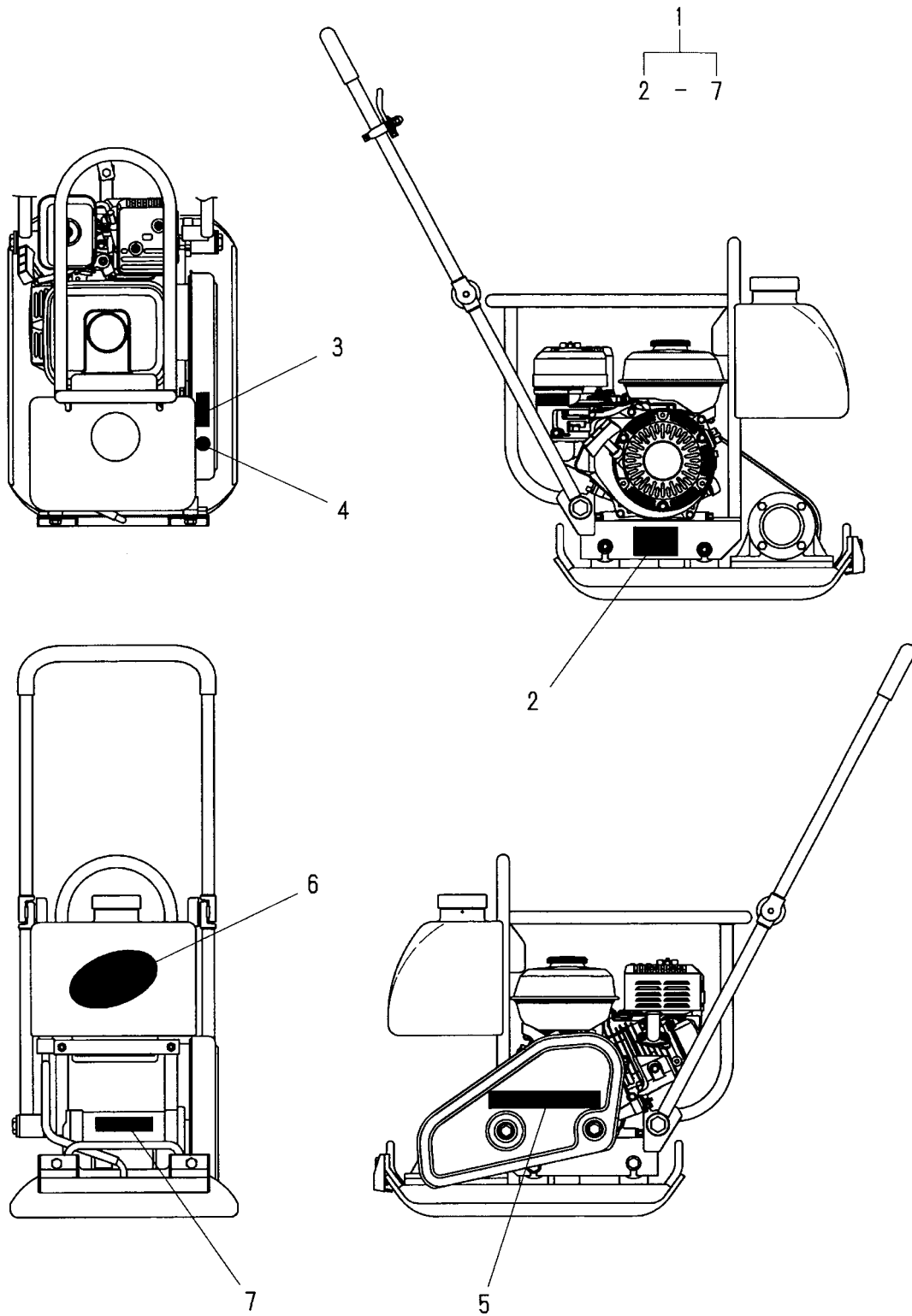
CARRYING CART ASSEMBLY, STANDARD TOOL KIT



# CARRYING CART ASSEMBLY, STANDARD TOOL KIT

ITEM	COMM. NO.	DESCRIPTION	QTY	DIMENSIONS/NOTES
BOM 13208475, 13221387, 13221411 & 13221429				
1	59984906	Carrying Cart Assembly (BX-6WH) (Includes Items 2 thru 5)	1	
-	59984914	Carrying Cart Assembly (BX-8WH) (Includes Items 2 thru 5)	1	
-	59984922	Carrying Cart Assembly (BX-12WH) (Includes Items 2 thru 5 )	1 1	
2	58836024	-Cart Shaft (BX-6WH)	1	
-	58836032	-Cart Shaft (BX-8WH)	1	
-	58836040	-Cart Shaft (BX-12WH)	1	
3	59843706	-Tire & Wheel Assmbly	2	
4	59839159	-Washer	4	M20
5	59839167	-Cotter Pin	4	5 x 40
6	58836511	Tool Kit (Includes Items 7 thru 11)	1	
7	59830026	-Double Ended Spanner	1	22 x 24
8	59830018	-Double Ended Spanner	1	17 x 19
9	59830000	-Double Ended Spanner	1	10 x 13
10	59838805	-Slotted Screwdriver	1	
11	59839050	-Tool Bag	1	
12	59188458	Operation/Maintenance & Part Manual	1	

# DECALS INSTLLATON

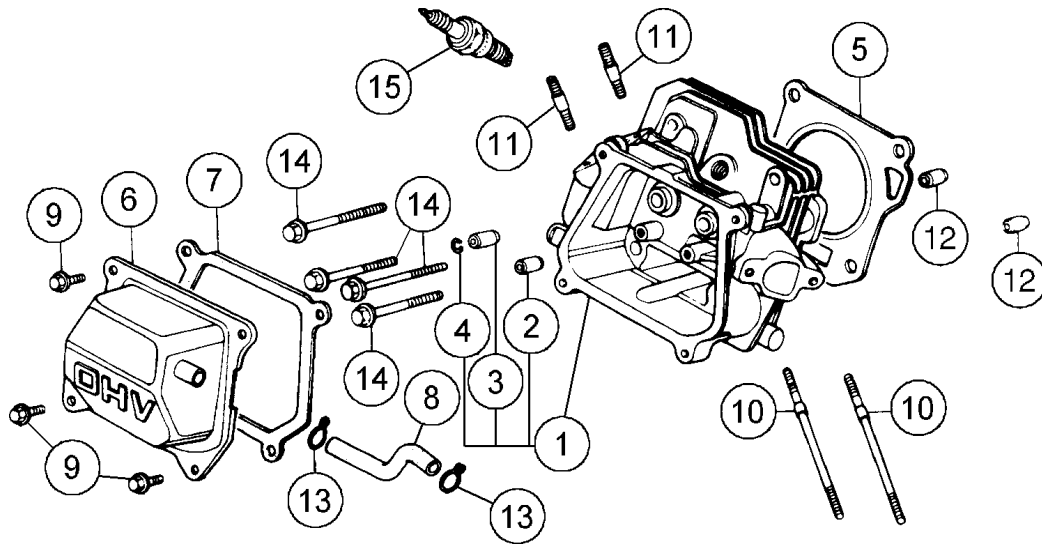




# DECAL INSTLLATON

ITEM	COMM. NO.	DESCRIPTION	QTY	DIMENSIONS/NOTES
		BOM 13208475, 13221387, 13221411 & 13221429		
1	13201991	Decal Set (BX-6WH) (Includes Items 2 thru 9)	1	
-	13202007	Decal Set (BX-8WH) (Includes Items 2 thru 9)	1	
-	13202015	Decal Set (BX-12WH) (Includes Items 2 thru 9)	1	
2	59188011	-Name Plate	1	
3	54692561	-Label, Warning	1	
4	59188300	-Label, Caution	1	
5	59426262	-Decal, I-R Log	1	
6	54679162	-Decal, I-R Emblem	1	
7	59426262	-Decal, BX-6 (BX-6WH)	1	
-	59433342	-Decal, BX-8 (BX-8WH)	1	
-	59433359	-Decal, BX-12 (BX-12WH)	1	

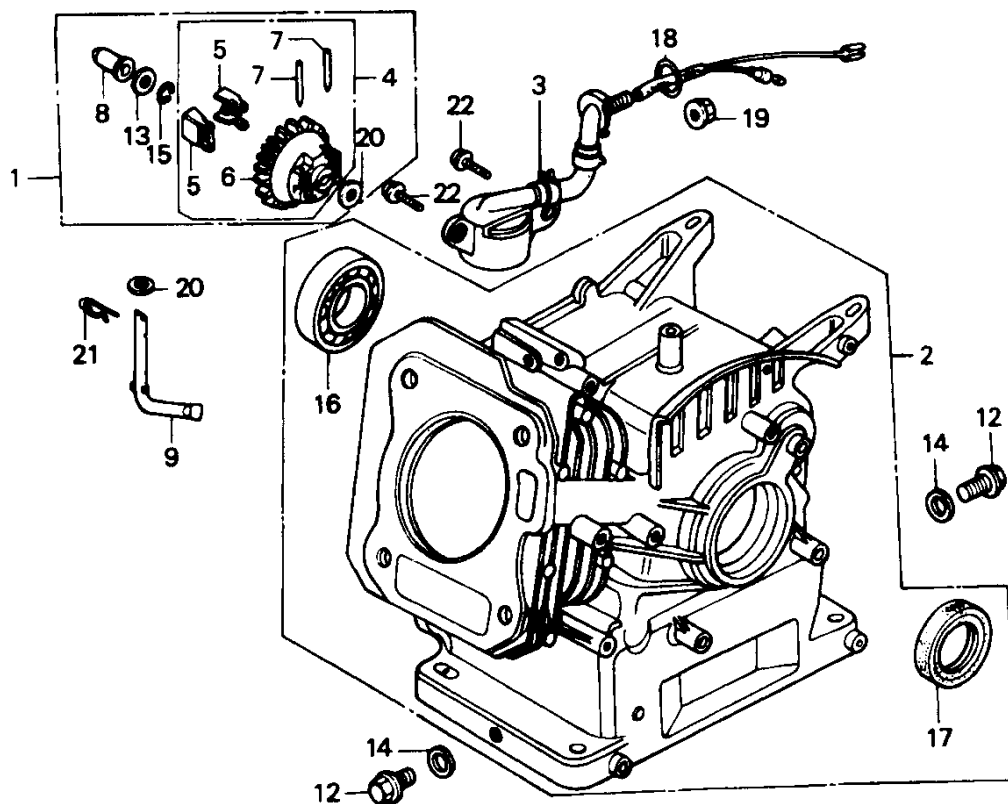
ENGINE ASSEMBLY - BX-6WH (58836438) - INTERNAL BREAKDOWN  
SHEET 1 OF 15



**ENGINE ASSEMBLY - BX-6WH (58836438) - INTERNAL BREAKDOWN**  
**SHEET 1 OF 15**

ITEM	COMM. NO.	DESCRIPTION	QTY	DIMENSIONS/NOTES
BOM 58836438				
1	13220983	Cylinder Head (Includes Item 2, 3 & 4)	1	
2	59242925	-Inlet Valve Guide (Effective with Engine S/N 2156735)	1	
-	54473913	-Inlet Valve Guide (Prior to Engine S/N 2156735)	1	
3	59242933	-Exhaust Valve Guide	1	
4	59242941	-Valve Guide Clip	1	
5	59242958	Head Gasket (Effective with Engine S/N 2157160)	1	
-	13220991	Head Gasket (Prior to Engine S/N Engine 2157160)	1	
6	54474028	Head Cover	1	
7	59242974	Packing	1	
8	13221007	Breather Tube (Eff. With Engine S/N 2115474)	1	
-	59242982	Breather Tube (Prior to Engine S/N 2115474)	1	
9	59242990	Flange Bolt (Eff. with Engine S/N 2299857)	4	M6 x 12mm
-	54474036	Flange Bolt (Prior to Engine S/N 2299857)	4	M6 x 13mm
10	54474044	Stud Bolt	2	M6 x 109mm
11	59243212	Stud Bolt	2	M8 x 32mm
12	59243220	Dowel Pin	2	M10 x 16mm
13	13221015	Tube Clip	2	
14	59243238	Flange Bolt	4	M8 x 60mm
15	54474093	Spark Plug	1	BPR6ES NGK
-	54474135	Spark Plug	1	W20EPR-U ND
16	54474093	Spark Plug Wrench	1	

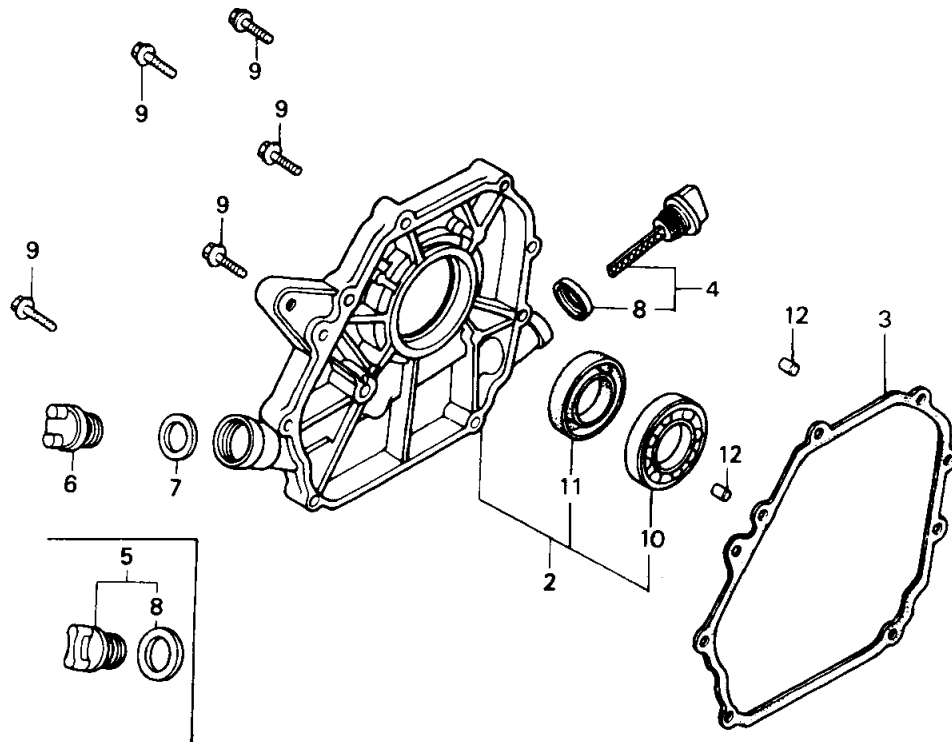
ENGINE ASSEMBLY - BX-6WH (58836438) - INTERNAL BREAKDOWN  
SHEET 2 OF 15



**ENGINE ASSEMBLY - BX-6WH (58836438) - INTERNAL BREAKDOWN**  
**SHEET 2 OF 15**

ITEM	COMM. NO.	DESCRIPTION	QTY	DIMENSIONS/NOTES
1	59243295	Governor Kit (includes items 4,8,13,15, 20)	1	6mm
4	59243311	-Governor Assembly (includes items 5,6,7)	1	
5	59243329	-Weight	2	
6	59243337	-Weight Holder	1	
7	59243345	-Weight Pin	2	
8	59243352	-Slider	1	
13	59243386	-Thrust Washer	1	
15	59243600	-Clip	1	
20	59243634	-Washer	2	
2	13221023	Cylinder Barrel Assembly (includes items 16,17)	1	
16	59243618	-Bearing	1	
17	59243626	-Oil Seal	1	
3	54474176	Oil Level Switch Assembly (Effective with Engine S/N 2186370)	1	
-	54474168	Oil Level Switch Assembly (Prior to Engine S/N 2186370)	1	14mm 10mm 8mm M6 x 12mm
9	59243360	Arm Shaft	1	
12	59243378	Drain Plug	2	
14	59243394	Washer	2	
18	54474226	O-ring	1	
19	54474234	Flange Nut	1	
21	59243642	Lockpin	1	
22	54474259	Flange Bolt	2	

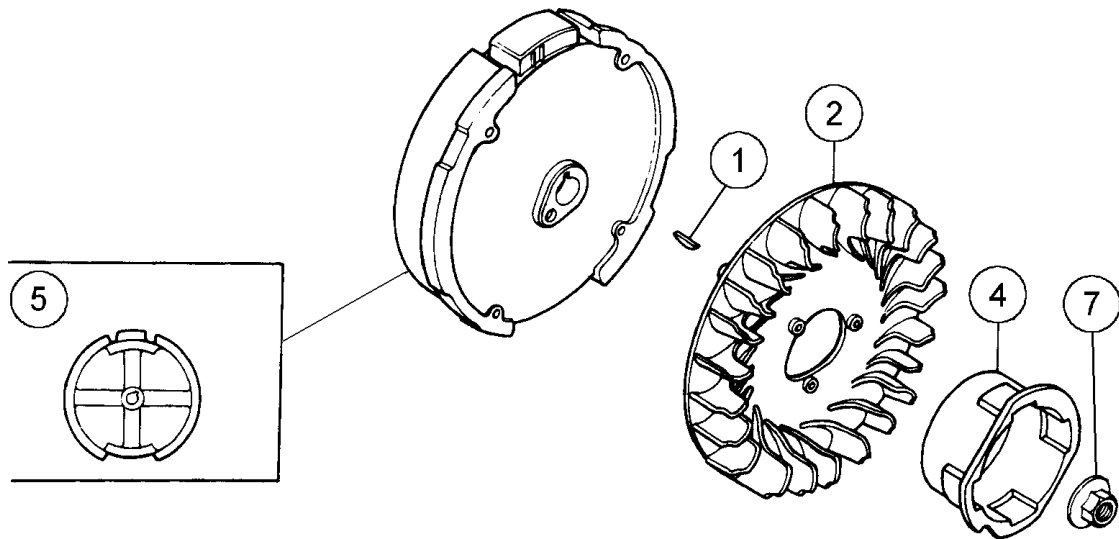
ENGINE ASSEMBLY - BX-6WH (58836438) - INTERNAL BREAKDOWN  
SHEET 3 OF 15



**ENGINE ASSEMBLY - BX-6WH (58836438) - INTERNAL BREAKDOWN**  
**SHEET 3 OF 15**

ITEM	COMM. NO.	DESCRIPTION	QTY	DIMENSIONS/NOTES
2	13221031	Crankcase Cover (includes items 10, 11)	1	25 x 41 x 6mm
10	59243618	-Bearing	1	
11	13221064	-Oil Seal	1	
3	13221049	Packing (Eff. with Engine S/N 2272435)	1	
-	13221056	Packing (Prior to Engine S/N 2272435)	1	
4	59243683	Oil Filler Cap Assembly (includes item 8) (Effective with Engine S/N 2354643))	1	
8	59243691	-Packing (Effective with Engine S/N 2354643)	2	
4	54474309	Oil Filler Cap Assembly (includes item 8) (Prior to Engine S/N 2354643)	1	
8	54474341	-Packing (Prior to Engine S/N 2354643)	1	
5	54474317	Oil Cap Assembly (includes item 8) (Effective with Engine S/N 2354643))	1	
8	59243691	-Packing (Effective with Engine S/N 2354643)	2	M8 x 32mm
6	54474325	Oil Filler Cap (Prior to Engine S/N 2354643)	1	
7	54474333	Packing (Prior to Engine S/N 2354643)	1	
9	59243717	Flange Bolt	7	
12	54474366	Dowel Pin	2	

ENGINE ASSEMBLY - BX-6WH (58836438) - INTERNAL BREAKDOWN  
SHEET 4 OF 15



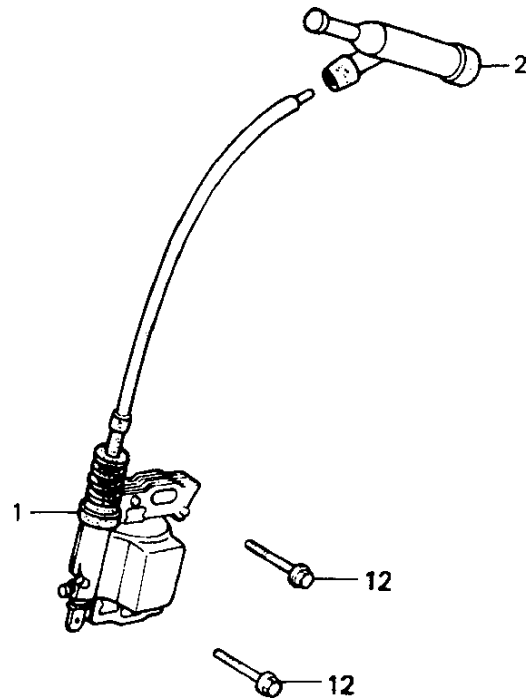


## ENGINE ASSEMBLY - BX-6WH (58836438) - INTERNAL BREAKDOWN

SHEET 4 OF 15

ITEM	COMM. NO.	DESCRIPTION	QTY	DIMENSIONS/NOTES
1	59244632	Woodruff Key	1	14mm
2	59244590	Cooling Fan	1	
4	59244608	Starter Pulley	1	
5	13221072	Flywheel Complete	1	
7	59244624	Special Nut	1	

ENGINE ASSEMBLY - BX-6WH (58836438) - INTERNAL BREAKDOWN  
SHEET 5 OF 15

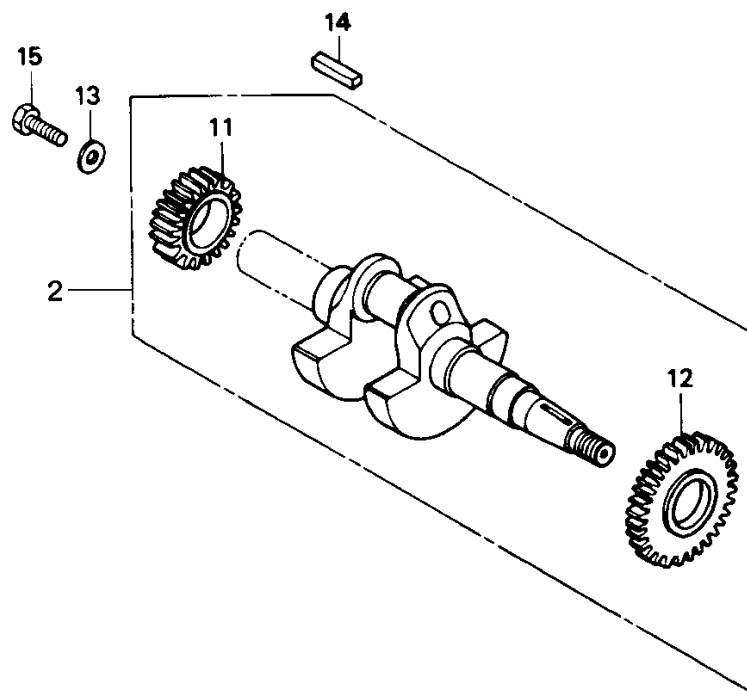


## ENGINE ASSEMBLY - BX-6WH (58836438) - INTERNAL BREAKDOWN

SHEET 5 OF 15

ITEM	COMM. NO.	DESCRIPTION	QTY	DIMENSIONS/NOTES
1	54474416	Ignition Coil Assembly	1	M6 x 25mm
2	54474424	Noise Suppressor Cap Assembly	1	
12	59244665	Flange Bolt	2	

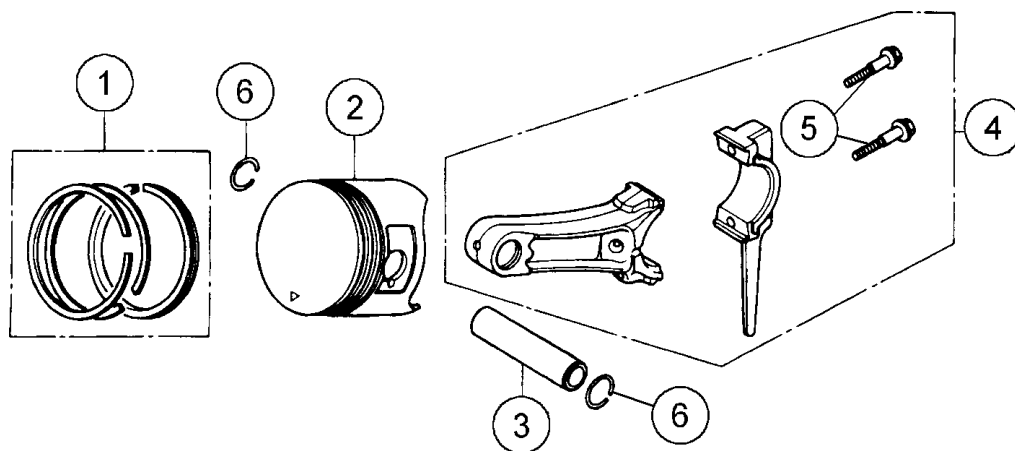
ENGINE ASSEMBLY - BX-6WH (58836438) - INTERNAL BREAKDOWN  
SHEET 6 OF 15



ENGINE ASSEMBLY - BX-6WH (58836438) - INTERNAL BREAKDOWN  
SHEET 6 OF 15

ITEM	COMM. NO.	DESCRIPTION	QTY	DIMENSIONS/NOTES
2	13221080	Crankshaft (Includes Items 11 and 12)	1	
11	13221098	-Timing Gear	1	
12	13221106	-Governor Drive Gear	1	
13	54474465	Washer	1	M8
14	54474473	Key	1	
15	54474457	Hex Bolt	1	M8 x 25mm

ENGINE ASSEMBLY - BX-6WH (58836438) - INTERNAL BREAKDOWN  
SHEET 7 OF 15



ENGINE ASSEMBLY - BX-6WH (58836438) - INTERNAL BREAKDOWN  
SHEET 7 OF 15

ITEM	COMM. NO.	DESCRIPTION	QTY	DIMENSIONS/NOTES
1	13221114	Piston Ring Set	1	Standard
2	59243790	Piston	1	Standard
3	59243808	Piston Pin	1	
4	59243816	Connecting Rod Assembly (includes item 5)	1	
5	59243824	-Connecting Rod Bolt	2	
6	59243832	Clip	2	

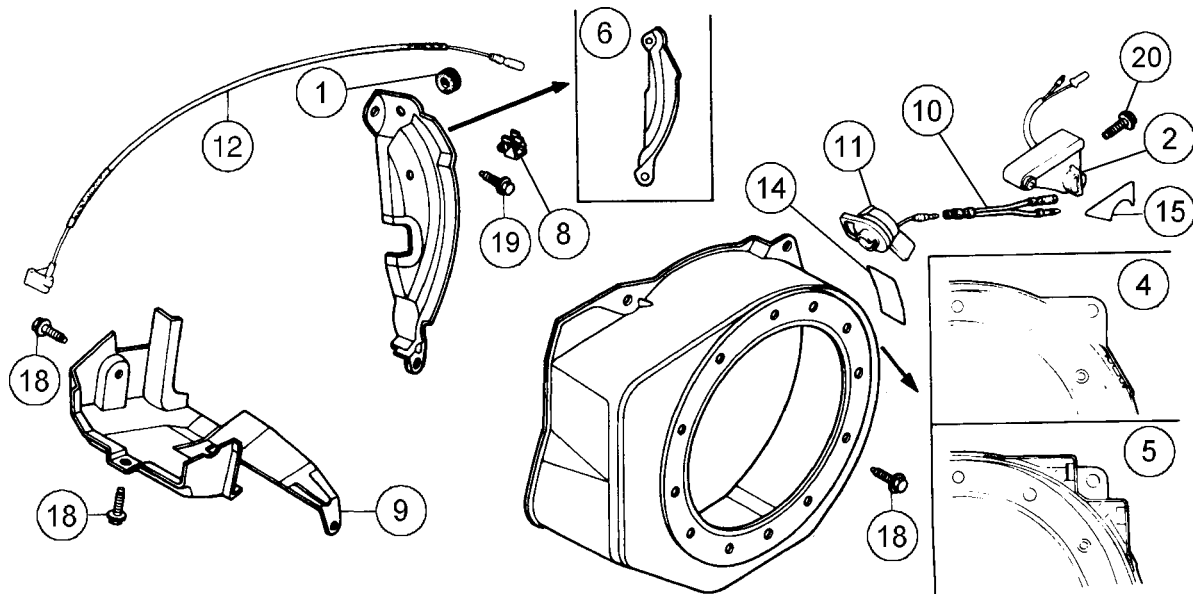
This diagram illustrates the exploded view of a mechanical assembly, with components numbered 1 through 15. The assembly includes a main housing (1) with a gear (6) and a shaft (8). A central shaft (7) is supported by bearings (9) and a pin (10). A lever arm (3) is connected to the shaft via a pin (4) and a spring (14). A bracket (13) is attached to the lever arm with screws (14). A small component (15) is shown separately. The diagram is a technical drawing showing the relative positions and assembly sequence of the parts.



**ENGINE ASSEMBLY - BX-6WH (58836438) - INTERNAL BREAKDOWN**  
**SHEET 8 OF 15**

ITEM	COMM. NO.	DESCRIPTION	QTY	DIMENSIONS/NOTES
1	13221122	Camshaft Assembly (includes item 6)	1	
6	59243899	-Return Spring	1	
2	59243857	Push Rod	2	
3	54474648	Rocker Arm	2	
4	59243873	Valve Lifter	2	
5	54474655	Rocker Arm Pivot	2	
7	59243907	Intake Valve	1	
8	54474671	Exhaust Valve	1	
9	59243923	Valve Spring	2	
10	59243931	Spring Retainer, Inlet	1	
11	59243949	Spring Retainer, Exhaust	1	
12	59243956	Valve Rotater	1	
13	59243964	Guide Plate	1	
14	59243972	Pivot Bolt	2	
15	59243980	Pivot Adjusting Nut	2	

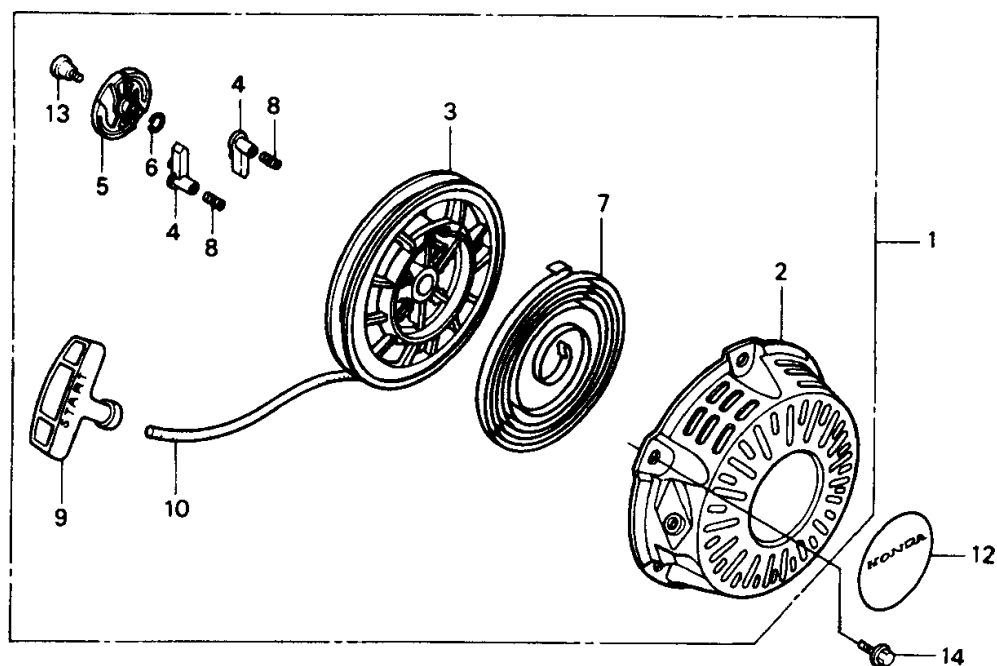
ENGINE ASSEMBLY - BX-6WH (58836438) - INTERNAL BREAKDOWN  
SHEET 9 OF 15



ENGINE ASSEMBLY - BX-6WH (58836438) - INTERNAL BREAKDOWN  
SHEET 9 OF 15

ITEM	COMM. NO.	DESCRIPTION	QTY	DIMENSIONS/NOTES
1	59244111	Cover Adjustment Grommet	1	
2	54474697	Oil Alert Unit	1	
4	13221130	Fan Cover (Effective with Engine S/N 2186370)	1	
5	13221148	Fan Cover (Prior to Engine S/N 2186370)	1	
6	13221155	Side Plate	1	
8	54474804	Stop Switch Cord Clamp	1	
9	13221163	Shroud	1	
10	54474820	Engine Stop Switch Harness	1	
11	59244145	Engine Stop Switch	1	
12	59244152	Stop Switch Cord	1	
14	13221171	Label: Specification	1	
15	54474846	Label: Oil Alert	1	
18	59242990	Flange Bolt	4	M6 x 12mm
19	59244764	Flange Bolt	1	M6 x 20mm
20	59244103	Flange Bolt	1	M6 x 8mm

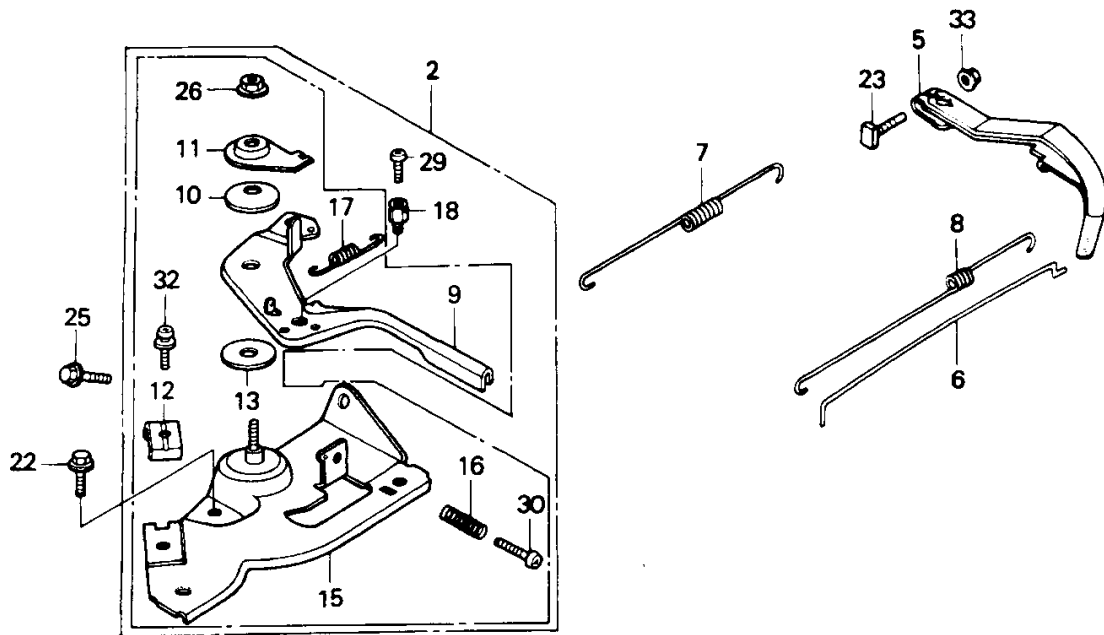
ENGINE ASSEMBLY - BX-6WH (58836438) - INTERNAL BREAKDOWN  
SHEET 10 OF 15



**ENGINE ASSEMBLY - BX-6WH (58836438) - INTERNAL BREAKDOWN**  
**SHEET 10 OF 15**

ITEM	COMM. NO.	DESCRIPTION	QTY	DIMENSIONS/NOTES
1	59243998	Recoil Starter Assembly (includes items 2 thru 10 & 13) (Effective with Engine S/N 2169650)	1	
-	54474861	Recoil Starter Assembly (includes items 2 thru 10 & 13) (Prior to Engine S/N 2169650)	1	
2	59244004	-Starter Case	1	
3	59244012	-Starter Reel (Eff. with Engine S/N 2169650)	1	
-	54474879	-Starter Reel (Prior to Engine S/N 2169650)	1	
4	59244020	-Starter Ratchet (Effective with Engine S/N 2169650)	2	
-	54474895	-Starter Ratchet (Prior to Engine S/N 2169650)	2	
5	59244038	-Ratchet Guide	1	
6	59244046	-Friction Spring	1	
7	59244053	-Starter Spring	1	
8	59244061	-Return Spring	1	
9	59242479	-Starter Knob	1	
10	59241992	-Starter Rope	1	
13	59244095	-Setting Screw	1	
12	13221189	Emblem (Eff with Engine S/N 2185870)	1	
	13221197	Emblem (Prior to Engine S/N 2185870)	1	
14	59244103	Flange Bolt	3	M6 x 8mm

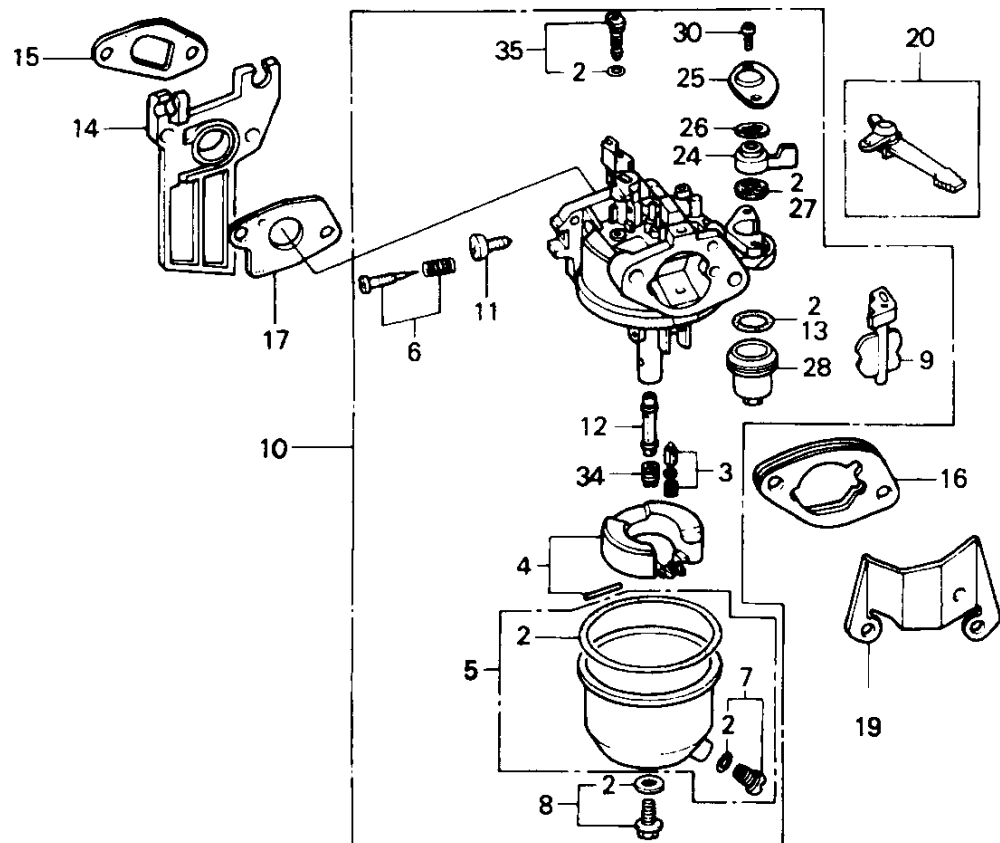
ENGINE ASSEMBLY - BX-6WH (58836438) - INTERNAL BREAKDOWN  
SHEET 11 OF 15



**ENGINE ASSEMBLY - BX-6WH (58836438) - INTERNAL BREAKDOWN**  
**SHEET 11 OF 15**

ITEM	COMM. NO.	DESCRIPTION	QTY	DIMENSIONS/NOTES
2	13221205	Control Assembly (Includes items 9,10,11, 12,13,15,16,17,18,26,29,30 & 32)	1	
9	13221213	-Control Lever	1	
10	59244723	-Lever Spring	1	
11	54474978	-Control Lever Washer	1	
12	54474986	-Cable Holder	1	
13	54474994	-Control Lever Spacer	1	
15	13221221	-Control Base		
16	59244731	-Control Adjusting Spring	1	
17	59244749	-Cable Return Spring	1	
18	54475025	-Wire Holder	1	
26	54475041	-Locknut	1	6mm
29	54475074	-Pan Screw	1	M4 x 6mm
30	54475058	-Pan Screw	1	M5 x 25mm
32	54475090	-Pan Screw (Eff. with Engine S/N 2311704)	1	M5 x 16mm
-	54475082	-Screw Washer (Prior to Engine S/N 2311704)	1	M5 x 16mm
5	54474929	Governor Arm	1	
6	59244681	Governor Rod	1	
7	59244699	Governor Spring	1	
8	59244707	Throttle Return Spring	1	
22	59242990	Flange Bolt	1	M6 x 12mm
23	59244772	Governor Arm Bolt	1	
25	59244764	Flange Bolt	1	M6 x 20mm
33	59244418	Flange Nut	1	6mm

ENGINE ASSEMBLY - BX-6WH (58836438) - INTERNAL BREAKDOWN  
SHEET 12 OF 15

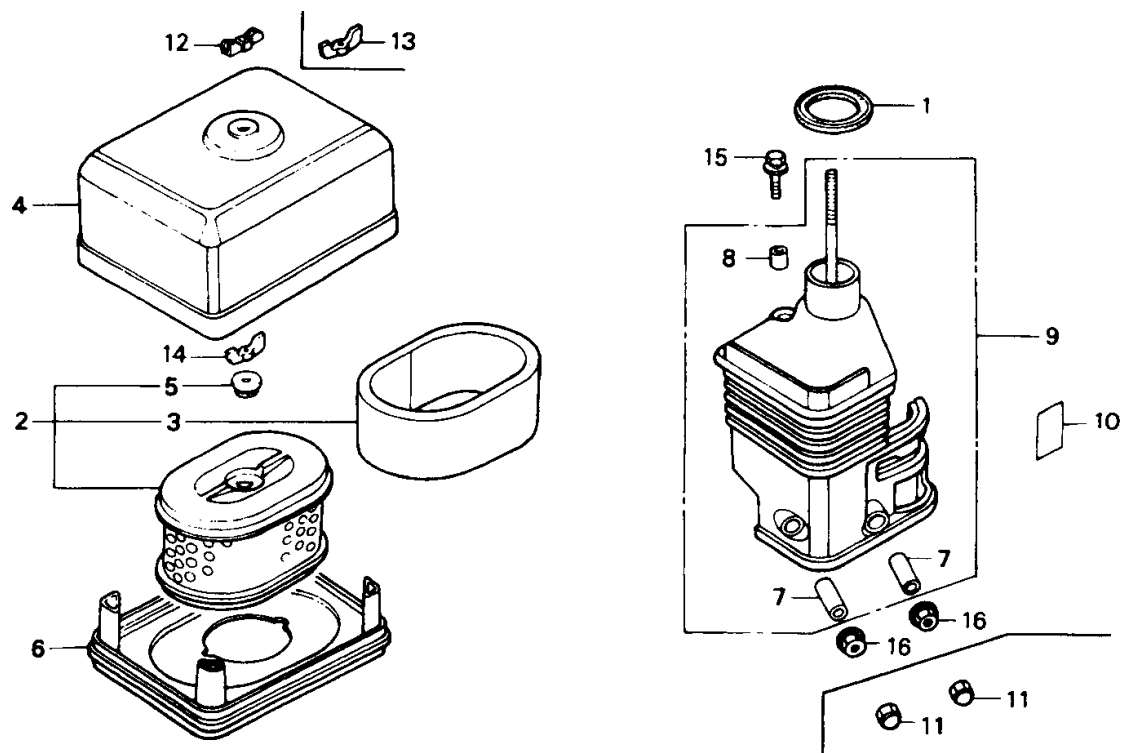




**ENGINE ASSEMBLY - BX-6WH (58836438) - INTERNAL BREAKDOWN**  
**SHEET 12 OF 15**

ITEM	COMM. NO.	DESCRIPTION	QTY	DIMENSIONS/NOTES
10	13221254	Carburetor Assembly (Effective with Engine S/N 2354881) (Includes items 3,4,5,6,8,9,11,12,13,24, 25, 26, 27,28,30, 34 & 35)	1	
-	13221262	Carburetor Assembly (Prior to Engine S/N 2354881) (Includes items 3,4,5,6,8,9,11,12,13,24, 25,26,27,28,30, 34 & 35)	1	
3	59244186	-Float Valve Set	1	
4	13221239	-Float Set	1	
5	13221247	-Float Chamber Set (Includes item 7)	1	
7	59244228	-Drain Screw Set (Includes gasket)	1	
6	59244210	-Pilot Screw Set	1	
8	59244236	-Screw Set (includes gasket)	1	
9	59244244	-Choke Set	1	
11	54475140	-Throttle Stop Screw	1	
12	13221270	-Main Nozzle (Eff. with Engine S/N BE12A)	1	
-	13221288	-Main Nozzle (Prior to Engine S/N BE12A)	1	
13	54475181	-Fuel Strainer Cup Packing	1	
24	54475280	-Cock Lever	1	
25	54475330	-Lever Setting Plate	1	
26	54475348	-Lever Spring	1	
27	54475314	-Packing	1	
28	54475355	-Fuel Strainer Cup	1	
30	54475363	-Pan Screw	2	M3 x 8
34	59244319	-Main Jet (includes gasket) (Effective with Engine S/N BE12A)	1	
-	13221304	-Main Jet (Includes gasket) (Prior to Engine S/N BE12A)	1	
35	59244327	-Pilot Jet Set (Includes Item 2)	1	#35
2	54475108	-Gasket Set	1	
14	59244269	Carburetor Insulator	1	
15	54475215	Packing (Eff. with Engine S/N 2272435)	1	
-	54475207	Packing (Prior to Engine S/N 2272435)	1	
16	59244285	Carburetor Spacer	1	
17	54475249	Packing (Eff. with Engine S/N 2272435)	1	
-	54475223	Packing (Prior to Engine S/N 2272435)	1	
19	54475264	Choke Control Stay (Effective with Engine S/N 2377548)	1	
	13221296	Choke Control Stay (Prior to Engine S/N 2377548)	1	
20	59244301	Choke Lever Complete	1	

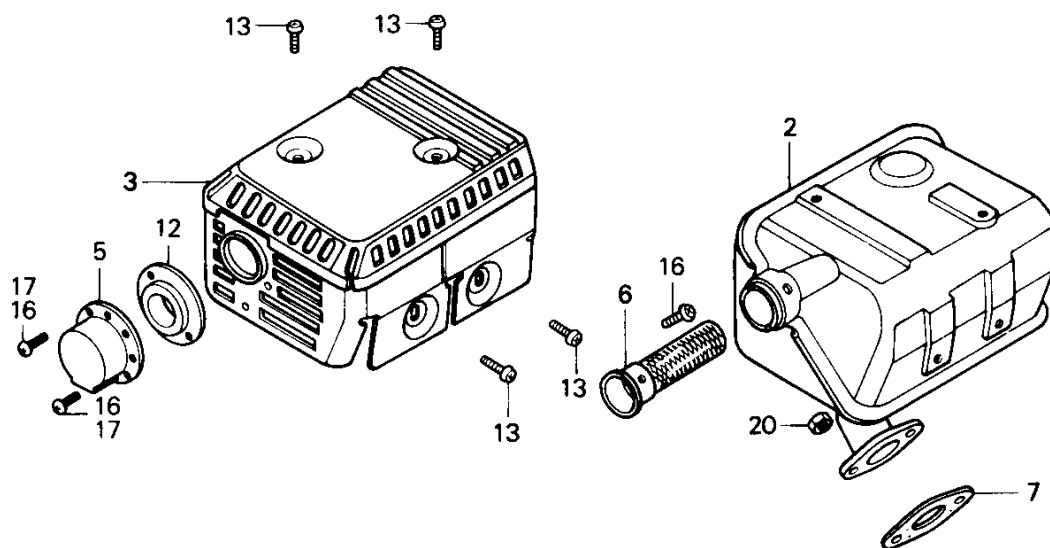
ENGINE ASSEMBLY - BX-6WH (58836438) - INTERNAL BREAKDOWN  
SHEET 13 OF 15



**ENGINE ASSEMBLY - BX-6WH (58836438) - INTERNAL BREAKDOWN**  
**SHEET 13 OF 15**

ITEM	COMM. NO.	DESCRIPTION	QTY	DIMENSIONS/NOTES
1	54475421	Packing	1	
2	13221312	Air Cleaner (includes items 3,5)	1	
3	13221320	-Air Cleaner Filter	1	
5	54475462	-Grommet	1	
4	13221338	Cover	1	
6	54475470	Silencer Nose	1	
9	13221353	Air Cleaner Elbow (includes items 7,8)	1	
7	13221346	-Collar	2	
8	54475496	-Collar (B)	1	
10	59243196	Choke Mark	1	
11	54475512	Cap Nut	2	6mm
12	54475546	Wing Nut (Effective with Engine S/N 2185870)	1	
-	54475538	Cover Nut (Prior to Engine S/N 2185870)	1	
13	54475553	Tool Box Setting Nut	1	
14	54475553	Tool Box Setting Nut	1	
15	54475561	Bolt	1	M6 x 20mm
16	59244418	Flange Nut	2	6mm

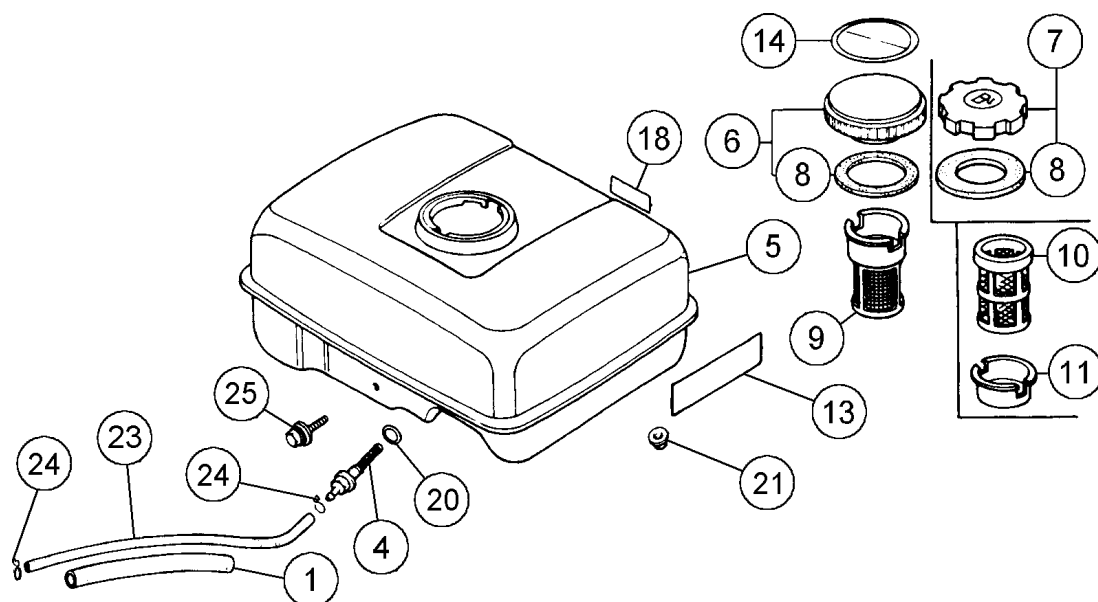
ENGINE ASSEMBLY - BX-6WH (58836438) - INTERNAL BREAKDOWN  
SHEET 14 OF 15



ENGINE ASSEMBLY - BX-6WH (58836438) - INTERNAL BREAKDOWN  
SHEET 14 OF 15

ITEM	COMM. NO.	DESCRIPTION	QTY	DIMENSIONS/NOTES
2	54475645	Muffler	1	
3	54475579	Protector (Standard) (Effective with Engine S/N 2470941)	1	
-	54475652	Protector (Standard) (Prior to Engine S/N 2470941)	1	
5	54475587	Deflector	1	
6	54475595	Spark Arrestor	1	
7	59244467	Gasket	1	
12	54475611	Guide	1	
13	54475629	Tapping Screw	4	M5 x 8mm
16	54475637	Tapping Screw	4	M4 x 6mm
17	13221361	Tapping Screw	2	M4 x 8mm
20	59244475	Hex Nut	2	8mm

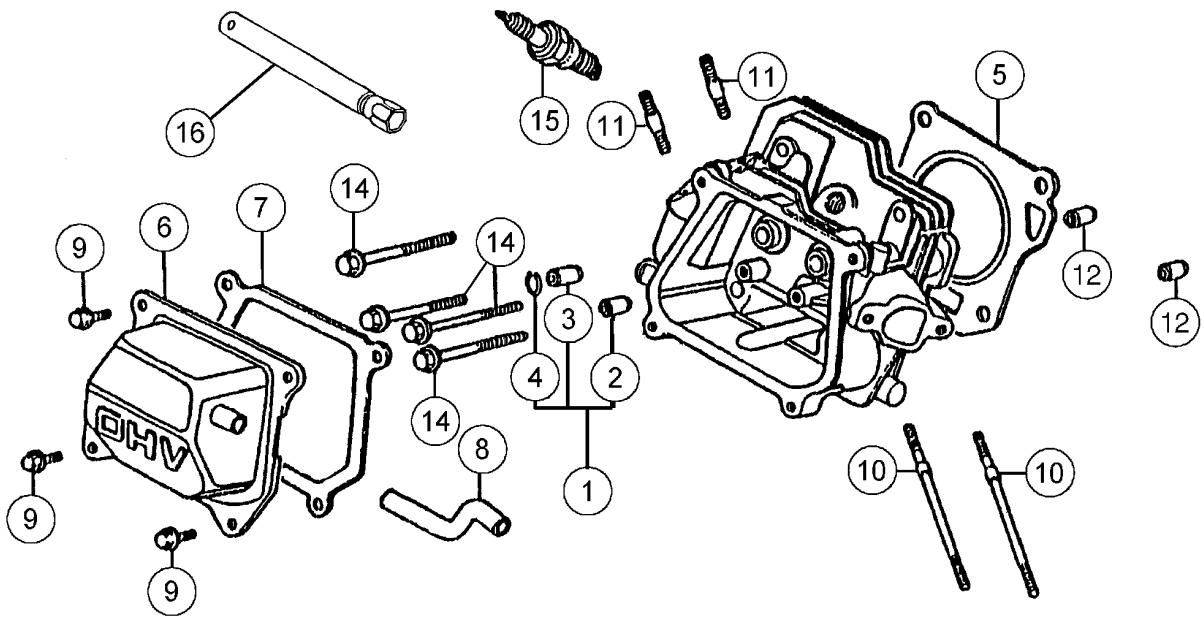
ENGINE ASSEMBLY - BX-6WH (58836438) - INTERNAL BREAKDOWN  
SHEET 15 OF 15



**ENGINE ASSEMBLY - BX-6WH (58836438) - INTERNAL BREAKDOWN**  
**SHEET 15 OF 15**

ITEM	COMM. NO.	DESCRIPTION	QTY	DIMENSIONS/NOTES
1	59244525	Rubber Supporter	1	
4	54475660	Fuel Tank Joint	1	
5	13221379	Fuel Tank Complete	1	
6	54475702	Fuel Tank Cap (Includes item 8) (Effective with Engine S/N 2421923)	1	
8	54475710	-Packing (Effective with Engine S/N 2421923)	1	
6	54475694	Fuel Tank Cap (Includes item 8) (Prior to Engine S/N 2421923)	1	
8	54475736	-Packing (Prior to Engine S/N 2421923)	1	
7	54475702	Fuel Tank Cap (Includes Item 8) (Effective with Engine S/N 2421923)	1	
8	54475710	-Packing (Effective with Engine S/N 2421923)	1	
9	54475744	Fuel Filter (Effective with Engine S/N 2328483)	1	
10	54475751	Fuel Filter (Prior to Engine S/N 2328483)	1	
11	54475769	Fuel Filter Holder	1	
13	54475785	Label: Caution	1	
14	54475793	Caution Mark	1	
18	54475801	Oil Alert Mark	1	
20	54474226	O-ring	1	14mm
21	59244418	Flange Nut	2	6mm
23	54475827	Fuel Tube	1	M4.5 x 140mm
24	59244566	Tube Clip	2	
25	54475835	Flange Bolt	1	M6 x 25mm

ENGINE ASSEMBLY - BX-8WH/12WH (58836446) - INTERNAL BREAKDOWN  
SHEET 1 OF 15

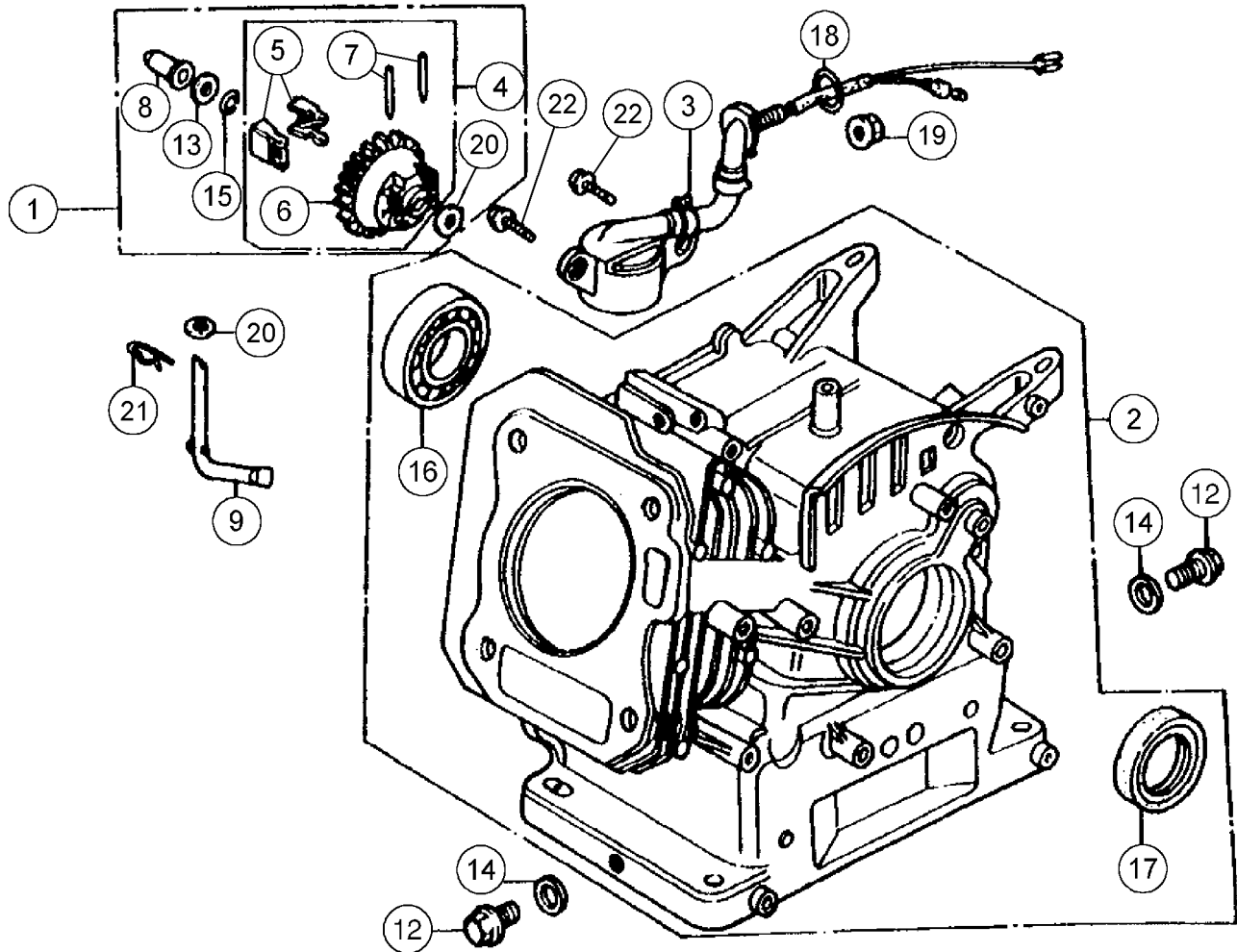




**ENGINE ASSEMBLY - BX-8WH/12WH (58836446) - INTERNAL BREAKDOWN**  
**SHEET 1 OF 15**

ITEM	COMM. NO.	DESCRIPTION	QTY	DIMENSIONS/NOTES
BOM 58836446				
1	54473897	Cylinder Head	1	
2	59242925	-Inlet Valve Guide	1	
3	59242933	-Exhaust Valve Guide	1	
4	59242941	-Valve Guide Clip	1	
5	54474010	Head Gasket	1	
6	54474028	Head Cover	1	
7	59242974	Packing	1	
8	59245982	Breather Tube	1	
9	59242990	Flange Bolt	4	M6 x 12mm
10	54474044	Stud Bolt	2	M6 x 109mm
11	59243212	Stud Bolt	2	M8 x 32mm
12	59243220	Dowel Pin	2	M10 x 16mm
14	54474051	Flange Bolt	4	M8 x 60mm
15	54474093	Spark Plug	1	BPR6ES NGK
-	54474135	Spark Plug	1	W20EPR-U ND
16	59243287	Spark Plug Wrench	1	

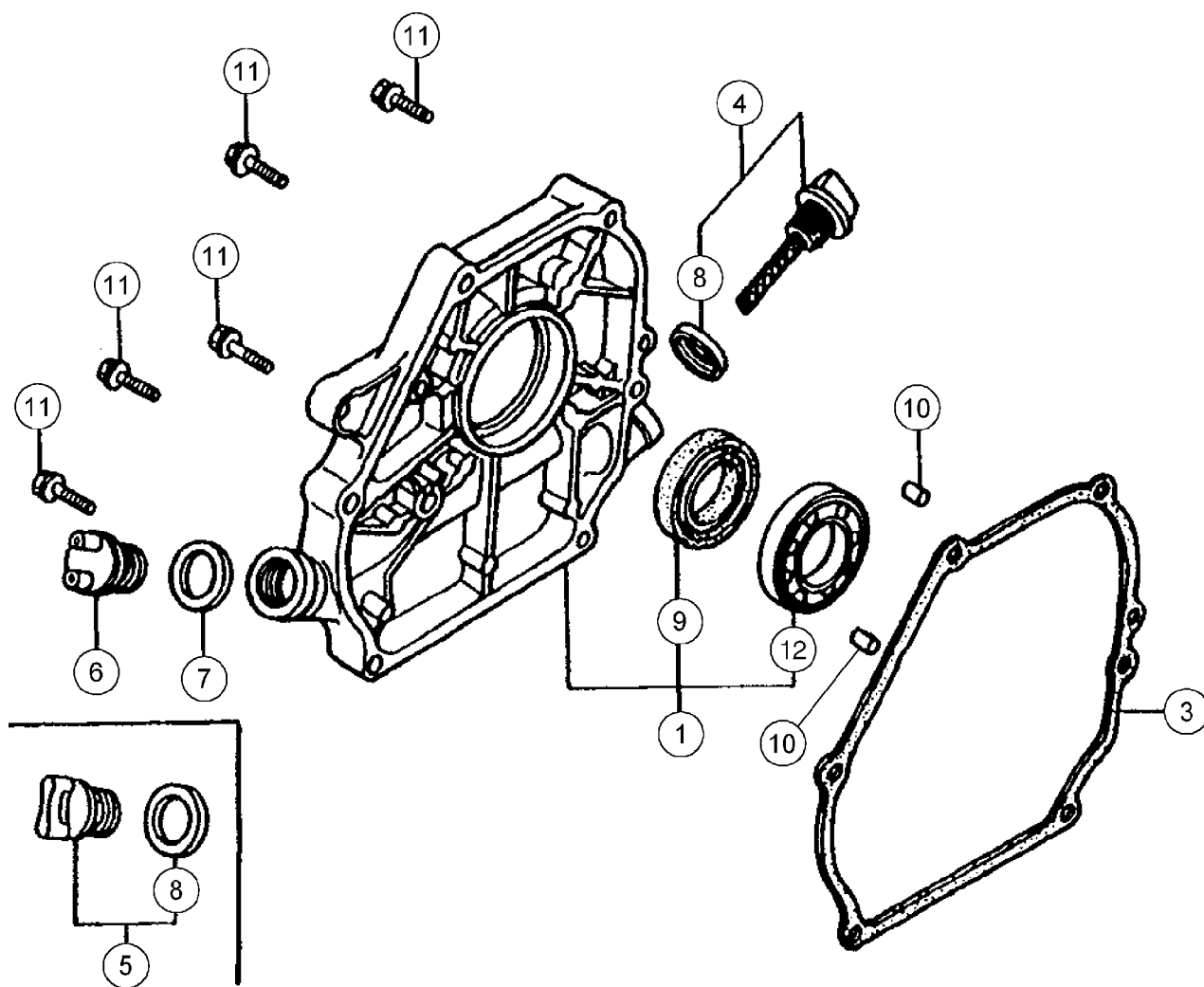
ENGINE ASSEMBLY - BX-8WH/12WH (58836446) - INTERNAL BREAKDOWN  
SHEET 2 OF 15



**ENGINE ASSEMBLY - BX-8WH/12WH (58836446) - INTERNAL BREAKDOWN**  
**SHEET 2 OF 15**

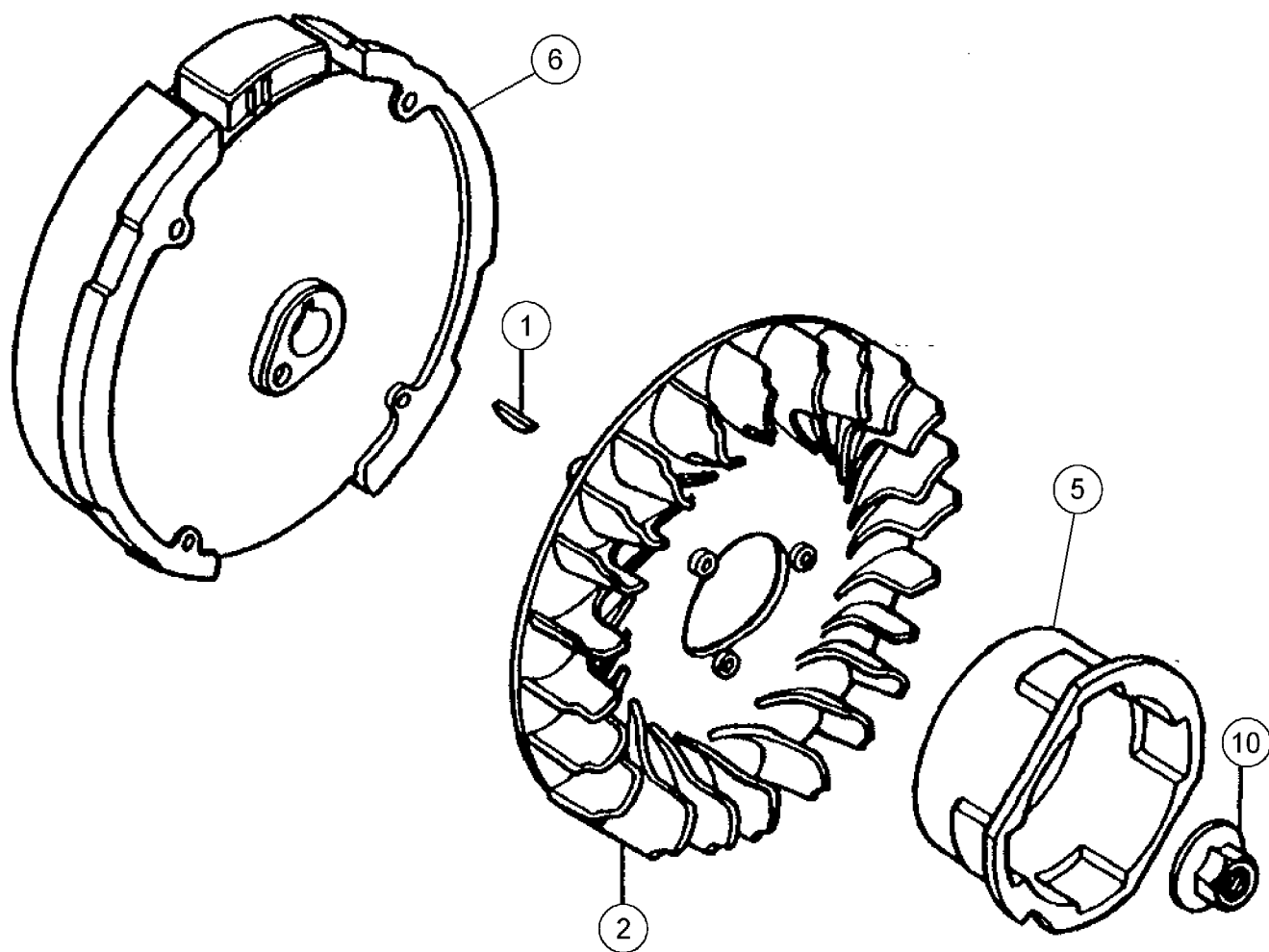
ITEM	COMM. NO.	DESCRIPTION	QTY	DIMENSIONS/NOTES
1	59243295	Governor Kit (includes items 4,8,13,15, 20)	1	
4	59243311	-Governor Assembly (includes items 5,6,7)	1	
5	59243329	-Weight	2	
6	59243337	-Weight Holder	1	
7	59243345	-Weight Pin	2	
8	59243352	-Slider	1	
13	59243386	-Thrust Washer	1	
15	59243600	-Clip	1	
20	59243634	-Washer	2	6mm
2	54474143	Cylinder Barrel Assembly (includes items 16,17)	1	
17	54474200	-Oil Seal	1	M25 x 41 x 6mm
16	54474184	-Bearing	1	6205TMB
-	54474192	-Bearing	1	6205SH
3	54474176	Oil Level Switch Assembly	1	
9	59243360	Arm Shaft	1	
12	59243378	Drain Plug	2	
14	59243394	Washer	2	
18	54474226	-O-ring	1	14mm
19	54474234	Flange Nut	1	10mm
21	59243642	Lockpin	1	8mm
22	54474259	Flange Bolt	2	M6 x 12mm

ENGINE ASSEMBLY - BX-8WH/12WH (58836446) - INTERNAL BREAKDOWN  
SHEET 3 OF 15



**ENGINE ASSEMBLY - BX-8WH/12WH (58836446) - INTERNAL BREAKDOWN**  
**SHEET 3 OF 15**

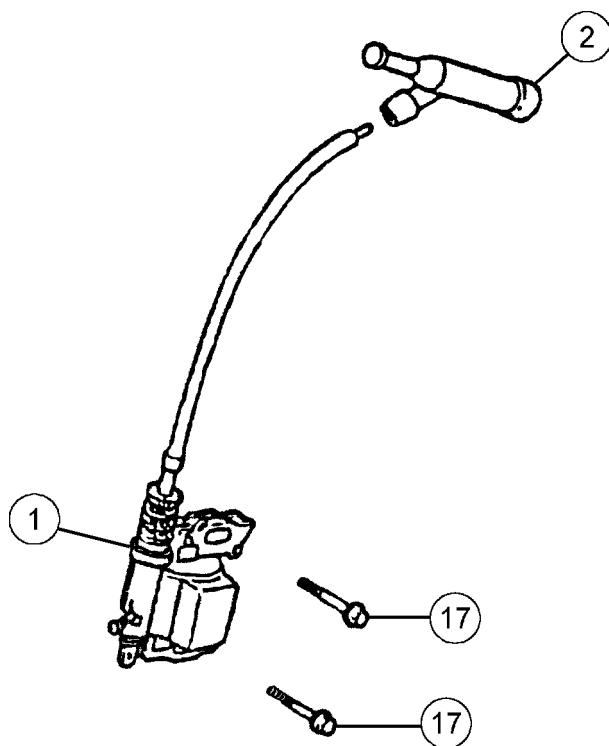
ITEM	COMM. NO.	DESCRIPTION	QTY	DIMENSIONS/NOTES
1	54474275	Crankcase Cover (includes items 9, 12)	1	25 x 41 x 6mm
9	54474358	-Oil Seal	1	
12	54474382	-Bearing	1	
3	54474291	Packing	1	
4	59243683	Oil Filler Cap Assembly (includes item 8)	1	
8	59243691	-Packing	2	
5	54474317	Oil Filler Cap Assembly (includes item 8)	1	
8	59243691	-Packing	2	
6	54474325	Oil Filler Cap	1	M8 x 14mm
7	54474333	Packing	1	
10	54474366	Dowel Pin	2	
11	54474374	Flange Bolt	6	



ENGINE ASSEMBLY - BX-8WH/12WH (58836446) - INTERNAL BREAKDOWN  
SHEET 4 OF 15

ITEM	COMM. NO.	DESCRIPTION	QTY	DIMENSIONS/NOTES
1	59244632	Woodruff Key	1	14mm
2	54474390	Cooling Fan	1	
5	59244608	Starter Pulley	1	
6	54474408	Flywheel Complete	1	
10	59244624	Special Nut	1	

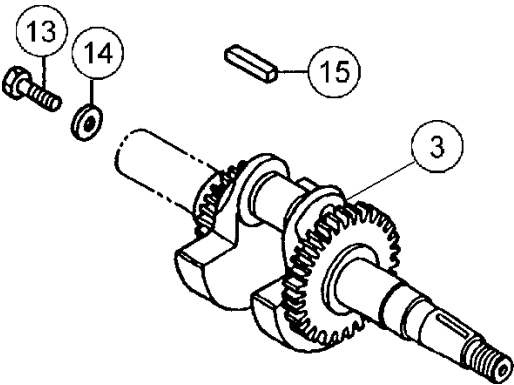
ENGINE ASSEMBLY - BX-8WH/12WH (58836446) - INTERNAL BREAKDOWN  
SHEET 5 OF 15





**ENGINE ASSEMBLY - BX-8WH/12WH (58836446) - INTERNAL BREAKDOWN**  
**SHEET 5 OF 15**

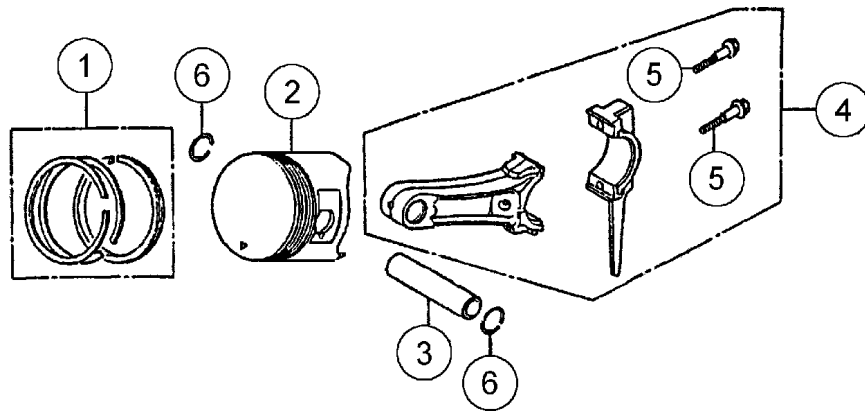
ITEM	COMM. NO.	DESCRIPTION	QTY	DIMENSIONS/NOTES
1	54474416	Ignition Coil Assembly	1	M6 x 25mm
2	59244657	High Tension Terminal Assembly	1	
-	54474424	Noise Suppressor Cap Assembly	1	
17	59244665	Flange Bolt	2	



ENGINE ASSEMBLY - BX-8WH/12WH (58836446) - INTERNAL BREAKDOWN  
SHEET 6 OF 15

ITEM	COMM. NO.	DESCRIPTION	QTY	DIMENSIONS/NOTES
3	54474432	Crankshaft	1	
13	54474457	Hex Bolt	1	M8 x 25mm
14	54474465	Washer	1	M8
15	54474473	Key	1	M8 x 5 x 33mm

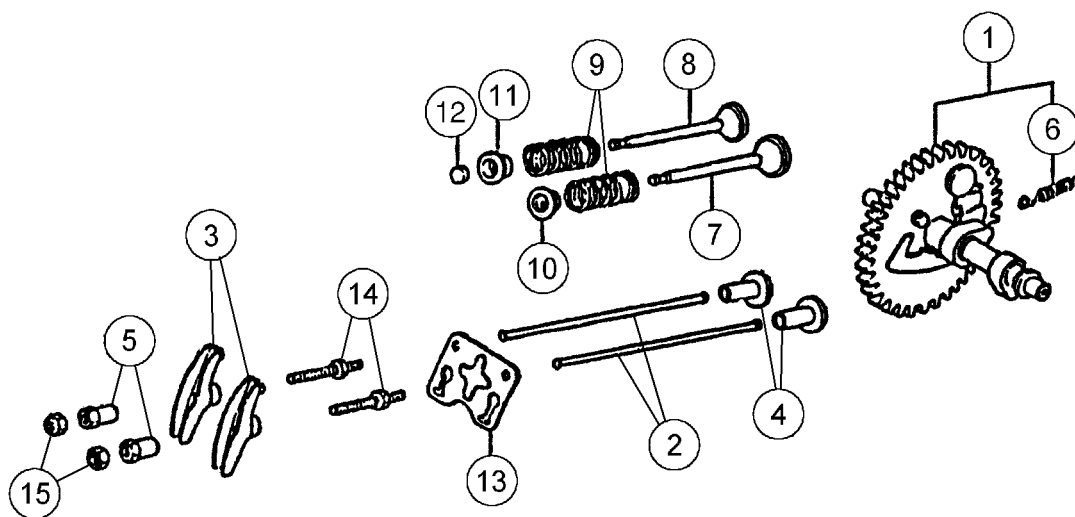
ENGINE ASSEMBLY - BX-8WH/12WH (58836446) - INTERNAL BREAKDOWN  
SHEET 7 OF 15



**ENGINE ASSEMBLY - BX-8WH/12WH (58836446) - INTERNAL BREAKDOWN**  
**SHEET 7 OF 15**

ITEM	COMM. NO.	DESCRIPTION	QTY	DIMENSIONS/NOTES
1	54474481	Piston Ring Set	1	Standard
2	54474531	Piston	1	Standard
3	54474598	Piston Pin	1	
4	54474606	Connecting Rod Assembly (includes item 5)	1	
5	59243824	-Rod Bolt	2	
6	54474614	Clip	2	

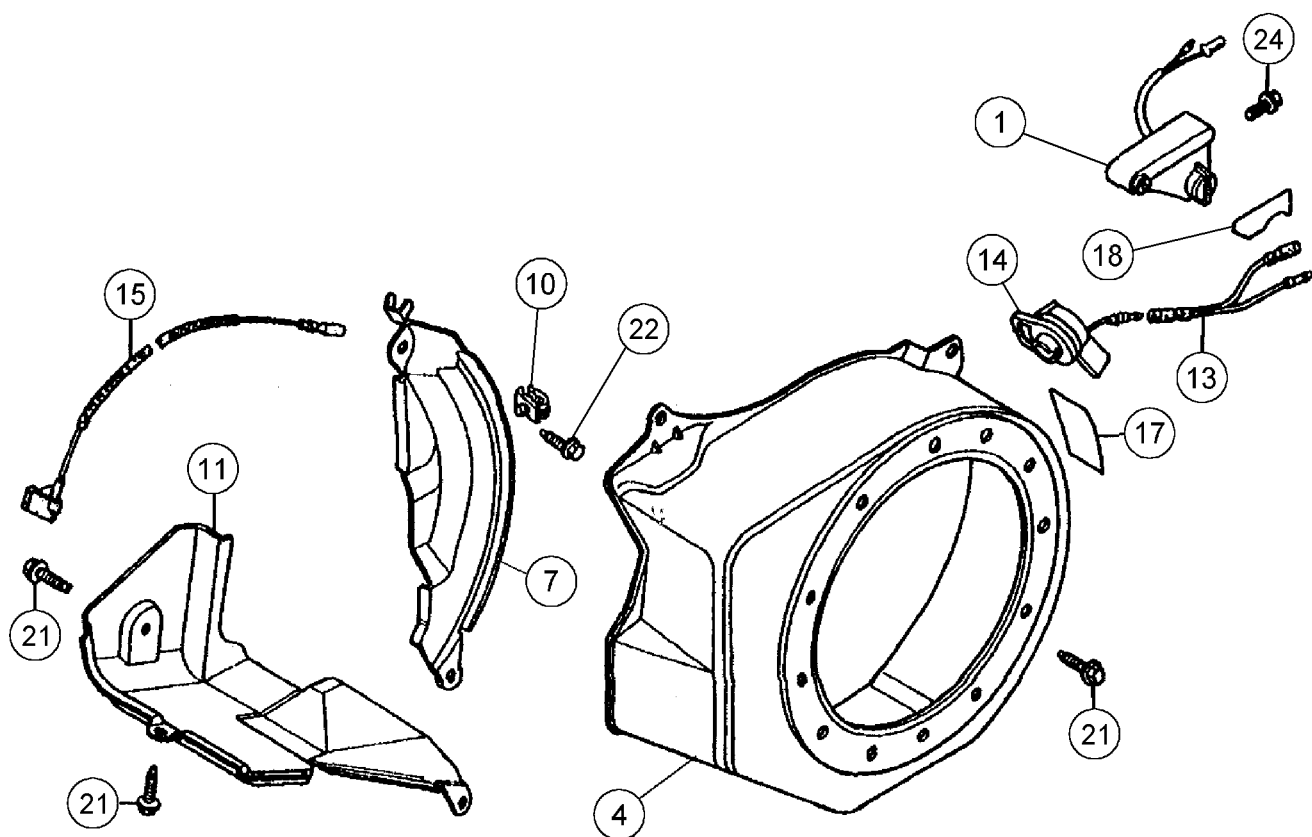
ENGINE ASSEMBLY - BX-8WH/12WH (58836446) - INTERNAL BREAKDOWN  
SHEET 8 OF 15



**ENGINE ASSEMBLY - BX-8WH/12WH (58836446) - INTERNAL BREAKDOWN**  
**SHEET 8 OF 15**

ITEM	COMM. NO.	DESCRIPTION	QTY	DIMENSIONS/NOTES
1	54474622	Camshaft Assembly (includes item 6)	1	
6	59243899	-Return Spring	1	
2	54474630	Push Rod	2	
3	54474648	Rocker Arm	2	
4	59243873	Valve Lifter	2	
5	54474655	Rocker Arm Pivot	2	
7	54474663	Intake Valve	1	
8	54474671	Exhaust Valve	1	
9	59243923	Valve Spring	2	
10	59243931	Inlet Spring Retainer	1	
11	59243949	Exhaust Spring Retainer	1	
12	59243956	Valve Rotater	1	
13	54474689	Guide Plate	1	
14	59243972	Pivot Bolt	2	
15	59243980	Pivot Adjusting Nut	2	

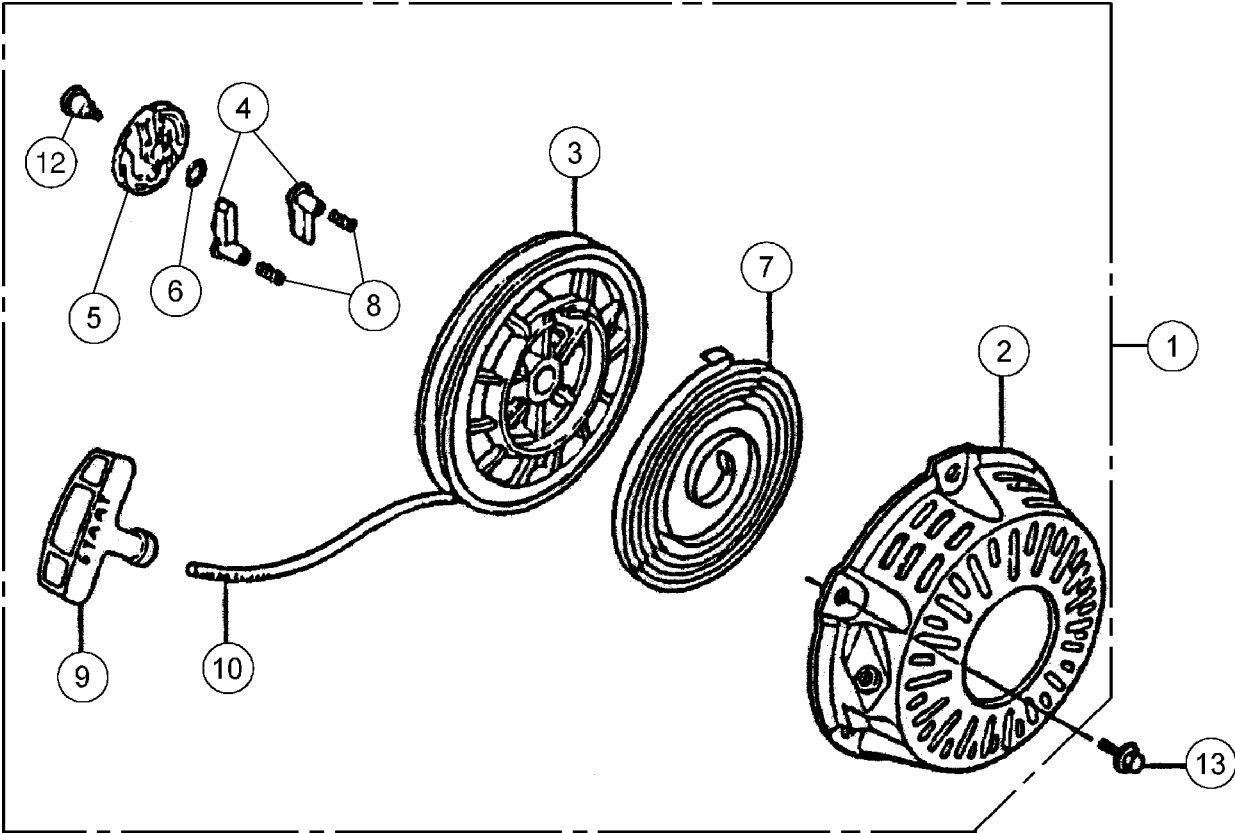
ENGINE ASSEMBLY - BX-8WH/12WH (58836446) - INTERNAL BREAKDOWN  
SHEET 9 OF 15





**ENGINE ASSEMBLY - BX-8WH/12WH (58836446) - INTERNAL BREAKDOWN**  
**SHEET 9 OF 15**

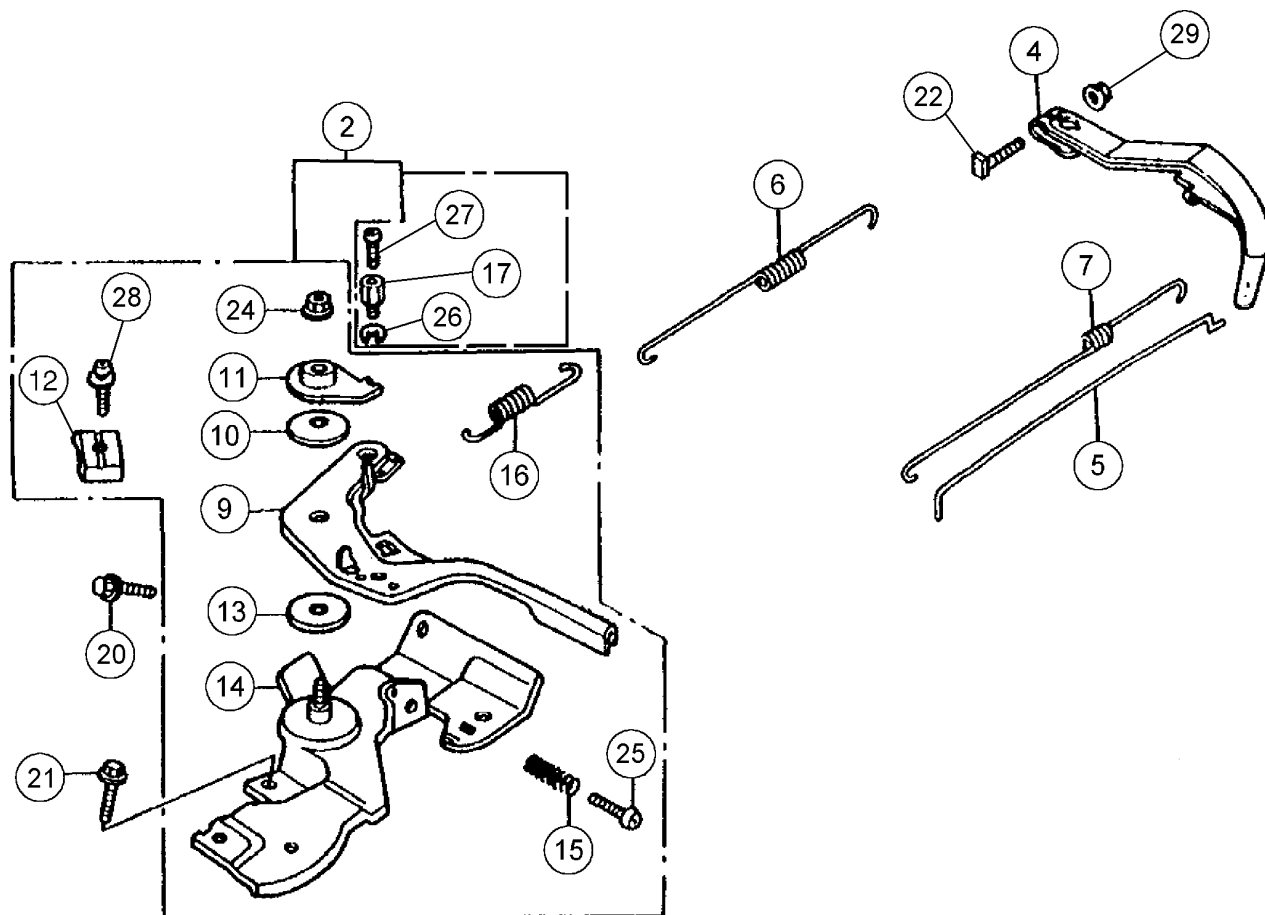
ITEM	COMM. NO.	DESCRIPTION	QTY	DIMENSIONS/NOTES
1	54474697	Oil Alert Unit	1	
4	54474739	Fan Cover	1	
7	54474796	Side Plate	1	
10	54474804	Stop Switch Cord Clamp	1	
11	54474812	Shroud	1	
13	54474820	Engine Stop Switch Harness	1	
14	59244145	Engine Stop Switch	1	
15	59244152	Stop Switch Cord	1	
17	54474838	Label: Specification	1	
18	54474846	Label: Oil Alert	1	
21	59242990	Flange Bolt	4	M6 x 12mm
22	59244764	Flange Bolt	1	M6 x 20mm
24	59244103	Flange Bolt	1	M6 x 8mm



**ENGINE ASSEMBLY - BX-8WH/12WH (58836446) - INTERNAL BREAKDOWN**  
**SHEET 10 OF 15**

ITEM	COMM. NO.	DESCRIPTION	QTY	DIMENSIONS/NOTES
1	59243998	Recoil Starter Assembly (includes items 2 thru 12)	1	
2	59244004	-Starter Case	1	
3	59244012	-Starter Reel	1	
4	59244020	-Starter Ratchet	2	
5	59244038	-Ratchet Guide	1	
6	59244046	-Friction Spring	1	
7	59244053	-Starter Spring	1	
8	59244061	-Return Spring	1	
9	59244079	-Starter Knob	1	
10	59244087	-Starter Rope	1	
12	59244095	-Setting Screw	1	
13	59244103	Flange Bolt	3	M6 x 8mm

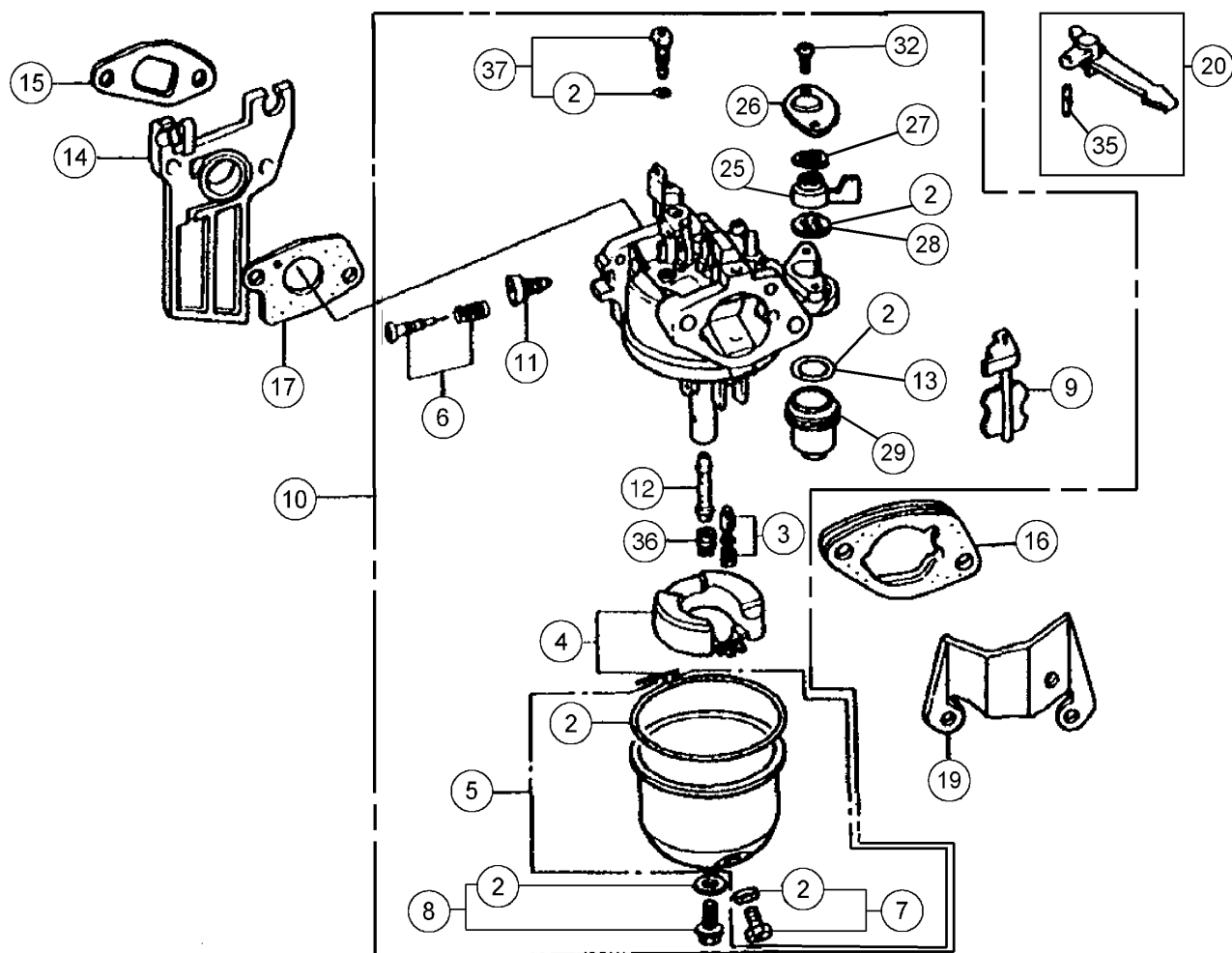
ENGINE ASSEMBLY - BX-8WH/12WH (58836446) - INTERNAL BREAKDOWN  
SHEET 11 OF 15



**ENGINE ASSEMBLY - BX-8WH/12WH (58836446) - INTERNAL BREAKDOWN**  
**SHEET 11 OF 15**

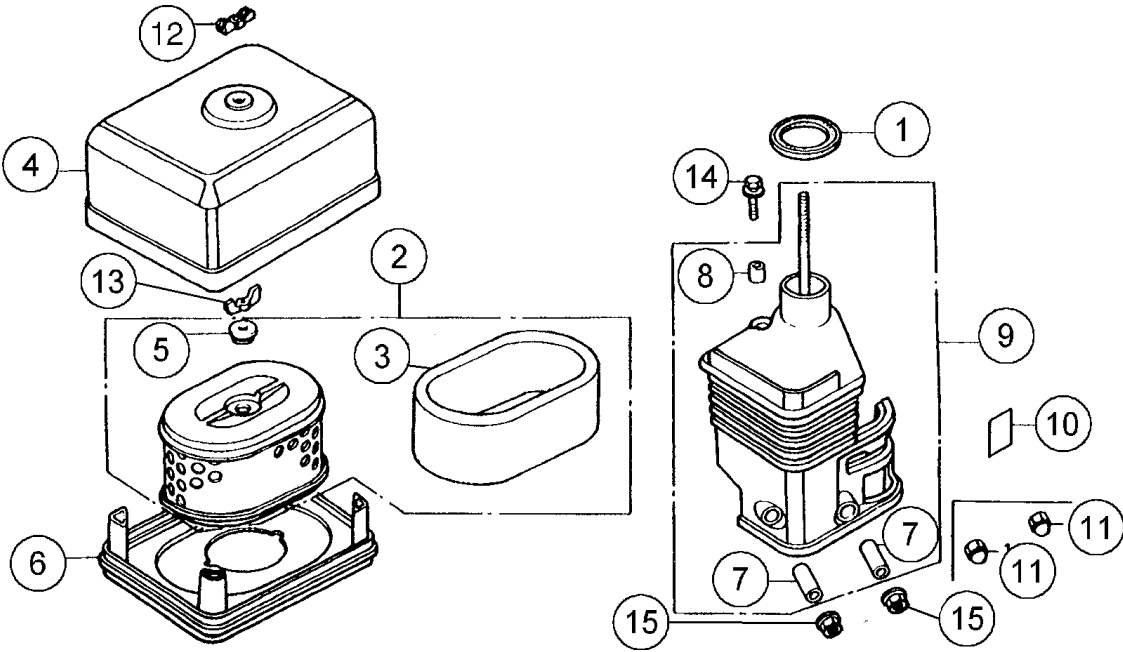
ITEM	COMM. NO.	DESCRIPTION	QTY	DIMENSIONS/NOTES
2	54474911	Control Assembly (includes items 9,10,11,12,13,14,15,16,17,24,25,26,27,28)	1	
9	54474960	-Control Lever	1	
10	59244723	-Lever Spring	1	
11	54474978	-Lever Washer	1	
12	54474986	-Cable Holder	1	
13	54474994	-Spacer	1	
14	54475017	-Control Base	1	
15	59244731	-Adjusting Spring	1	
16	59244749	-Cable Return Spring	1	
17	54475025	-Wire Holder	1	
24	54475041	-Locknut	1	6mm
25	54475058	-Pan Screw	1	
26	54475066	-Circlip	1	5mm
27	54475074	-Pan Screw	1	M4 x 6mm
28	54475090	-Pan Screw	1	M5 x 16mm
4	54474929	Governor Arm	1	
5	54474937	Governor Rod	1	
6	54474945	Governor Spring	1	
7	54474952	Throttle Return Spring	1	
20	54475033	Recessed Bolt	1	M5 x 25mm
21	59244756	Flange Bolt	1	M6 x 12mm
22	59244772	Governor Arm Bolt	1	
29	59244780	Flange Nut	1	6mm

ENGINE ASSEMBLY - BX-8WH/12WH (58836446) - INTERNAL BREAKDOWN  
SHEET 12 OF 15



**ENGINE ASSEMBLY - BX-8WH/12WH (58836446) - INTERNAL BREAKDOWN**  
**SHEET 12 OF 15**

ITEM	COMM. NO.	DESCRIPTION	QTY	DIMENSIONS/NOTES
2	54475108	Gasket Set	1	
10	54475124	Carburetor Assembly (includes items 3,4,5,6,8,9,11,12,13,25, 26,27,28,29,32,36,37)	1	
3	59244186	-Float Valve Set	1	
4	59244194	-Float Set	1	
5	59244202	-Float Chamber Set (includes item 7)	1	
7	59244228	-Drain Screw Set (includes gasket)	1	
6	59244210	-Pilot Screw Set	1	
8	59244236	-Screw Set (includes gasket)	1	
9	59244244	-Choke Set	1	
11	54475140	-Throttle Stop Screw	1	
12	54475173	-Main Nozzle	1	
13	54475181	-Packing	1	
25	54475322	-Cock Lever	1	
26	54475330	-Lever Setting Plate	1	
27	54475348	-Lever Spring	1	
28	54475314	-Packing	1	
29	54475355	-Fuel Strainer Cup	1	
32	54475363	-Pan Screw	2	M3 x 8mm
36	54475405	-Main Jet (includes gasket)	1	#70
37	59244327	-Pilot Jet Set	1	#35
14	54475199	Insulator	1	
15	54475215	Packing	1	
16	59244285	Spacer	1	
17	54475249	Packing	1	
19	54475264	Choke Control Stay	1	
20	59244301	Choke Lever Complete (includes item 35)	1	
35	54475371	-Spring Pin	1	M2 x 12mm

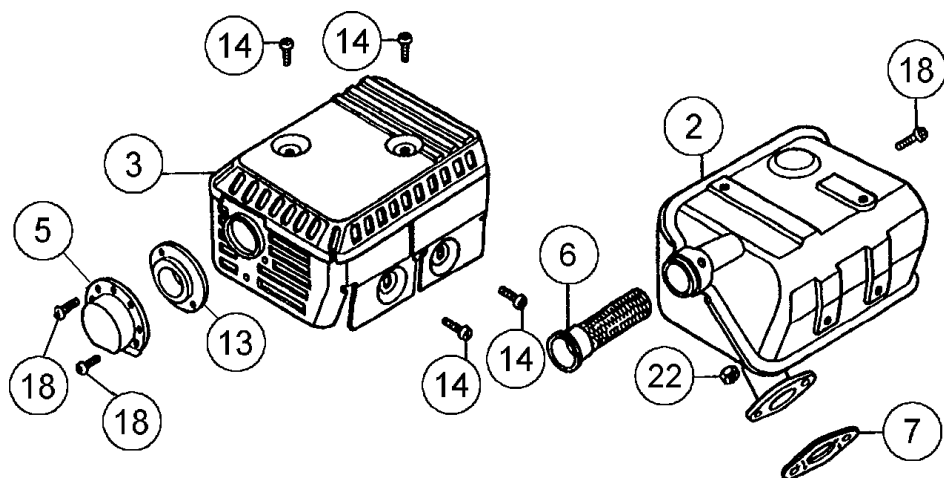




**ENGINE ASSEMBLY - BX-8WH/12WH (58836446) - INTERNAL BREAKDOWN**  
**SHEET 13 OF 15**

ITEM	COMM. NO.	DESCRIPTION	QTY	DIMENSIONS/NOTES
1	54475421	Packing	1	
2	54475439	Air Cleaner (includes items 3,5)	1	
3	54475447	-Air Cleaner Filter	1	
5	54475462	-Grommet	1	
4	54475454	Cover	1	
6	54475470	Silencer Nose	1	
9	54475504	Air Cleaner Elbow (includes items 7,8)	1	
7	54475488	-Collar	2	
8	54475496	-Collar (B)	1	
10	59243196	Choke Mark	1	
11	54475512	Cap Nut	2	6mm
12	54475553	Tool Box Setting Nut	1	
13	54475553	Tool Box Setting Nut	1	
14	54475561	Bolt	1	M6 x 20mm
15	59244418	Flange Nut	2	6mm

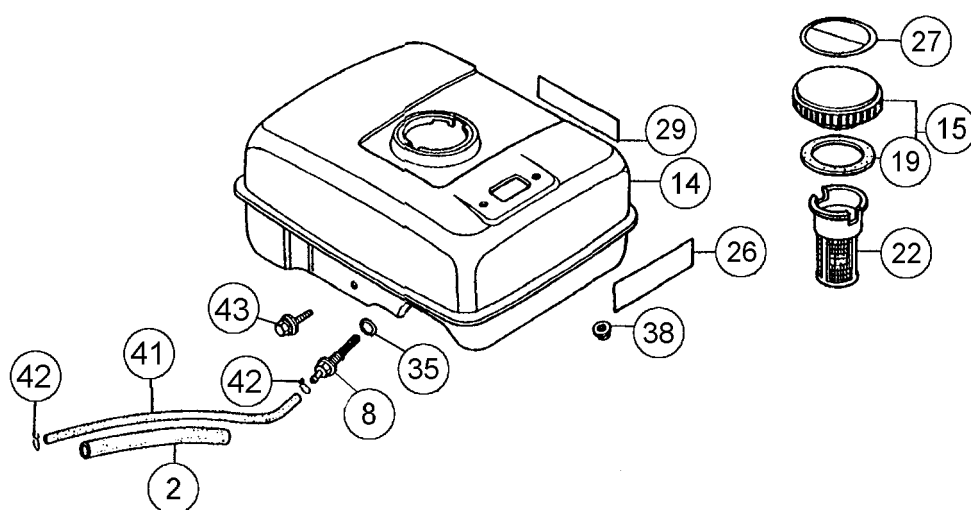
ENGINE ASSEMBLY - BX-8WH/12WH (58836446) - INTERNAL BREAKDOWN  
SHEET 14 OF 15



**ENGINE ASSEMBLY - BX-8WH/12WH (58836446) - INTERNAL BREAKDOWN**  
**SHEET 14 OF 15**

ITEM	COMM. NO.	DESCRIPTION	QTY	DIMENSIONS/NOTES
2	54475645	Muffler	1	
3	54475579	Protector (Standard)	1	
5	54475587	Deflector	1	
6	54475595	Spark Arrestor	1	
7	59244467	Gasket	1	
13	54475611	Guide	1	
14	54475629	Tapping Screw	4	M5 x 8mm
18	54475637	Tapping Screw	4	M4 x 6mm
22	59244475	Hex Nut	2	8mm

ENGINE ASSEMBLY - BX-8WH/12WH (58836446) - INTERNAL BREAKDOWN  
SHEET 15 OF 15



**ENGINE ASSEMBLY - BX-80/120H/WH (58836446) - INTERNAL BREAKDOWN**  
**SHEET 15 OF 15**

ITEM	COMM. NO.	DESCRIPTION	QTY	DIMENSIONS/NOTES
2	59244525	Rubber Supporter	1	
8	54475660	Fuel Tank Joint	1	
14	54475678	Fuel Tank Complete	1	
15	54475702	Fuel Filler Cap (Includes item 19)	1	
19	54475736	-Packing	1	
22	54475744	Fuel Filter	1	
26	54475785	Label: Caution	1	
27	54475793	Caution Mark	1	
29	54475801	Oil Alert Mark	1	
35	54475819	O-ring	1	14mm
38	59244418	Flange Nut	2	6mm
41	54475827	Fuel Tube	1	M4.5 x 140mm
42	59244566	Tube Clip	1	
43	54475835	Flange Bolt	1	M6 x 25mm

# HOW TO USE THIS MANUAL

This Parts Manual applies to all **BX-6WH/8WH/12WH Vibratory Compactors**

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## ***When the Comm. # is not Known - Use the Word Index:***

- Ingersoll-Rand's Word Index will make this item easy to locate. The Word Index is found in the very back of the book. The items listed are in alphabetical order and may be repeated several times depending on their functional descriptions.
- Let's assume you need to replace the **AIR CLEANER FILTER**.

Use any of the functional words in the item description to locate the desired item. Example: The first listing for the **Air Cleaner Filter** in the **Word Index** is: **Air Cleaner Filter**. The index shows the component will be found on pages **I.1.27 & I.2.27** which are the **Parts List** page numbers for the two **different Engine Assemblies**.

Air Cleaner Assembly_____	I.1.27, I.2.27
Air Cleaner Filter _____	I.1.27, I.2.27
Arm, Governor _____	I.1.23, I.2.23
Assembly, Air Cleaner _____	I.1.27, I.2.27
Assembly, Camshaft _____	I.1.17, I.2.17
Assembly, Carburetor_____	I.1.25, I.2.25
Assembly, Carrying Cart _____	C.1.2
Assembly, Clutch _____	A.1.3
Assembly, Connecting Rod _____	I.1.15, I.2.15
Assembly, Control_____	I.1.23, I.2.23

- The item is also listed as:

**Filter, Air Cleaner**

## ***Using the Parts Identification Pages:***

- The **PARTS IDENTIFICATION PAGES** consist of the **PARTS ILLUSTRATION** (even numbered pages) and the **PARTS LIST** (odd numbered pages).
- The **Parts Illustration** shows the assembly with its component parts identified by **Item Numbers**.
- On the **Parts List**, the components are listed in **Item Number** order as found in the **ITEM** column. Other information provided by the **Parts List** is the **Comm. Number** which will be required to order Genuine Ingersoll-Rand Replacement Parts, a **functional description**, the **quantity** required to assemble one complete assembly, and any additional **notes/ dimensions** required to help place your parts order.
- **For the example: The Air Cleaner Filter shown on Page I.1.27 is listed as Item 3, and the Comm. Number for the Element is 13221320, Quantity of 1.**

## ***When the Comm. # is not known - Use the Table of Contents:***

- Turn to the **TABLE OF CONTENTS** pages in the front of this manual. These pages show the major systems of the machine divided into **FUNCTIONAL GROUPS** (identified by capital letters).
- Find the **Functional Group** that best describes the area of the machine you are interested in. For example: [Engine Assembly](#).
- See the sample **Table of Contents** shown below:

### **INTERNAL BREAKDOWNS**

<b>I</b>	
Honda Engine - BX-6WH (58836438).....	I.1.2
Honda Engine - BX-8WH/12WH (58836446).....	I.2.2

Listed under the **Functional Group** of [Internal Breakdowns](#) are **SECTIONS** (identified by numbers that describe major repairable components of that group. Find the listing that refers to the [Honda Engine \(58836438\)](#).

- Since the [Air Cleaner Filter](#) is what needs to be replaced, refer to the parts listing for the [Engine](#). The [Air Cleaner](#) used on your machine is found in **Functional Group I.; Section 1** this makes up the first part of the page number. Turn to that section of the parts manual and find the parts listing on page [I.1.27](#) for the [Air Cleaner \(13221312\)](#).

## ***When the Comm. # is Known - Use the Numerical Index:***

- If you already know the **Comm. Number** (part number) for the item required, a **NUMERICAL INDEX** is provided in the back of the manual to assist you. Look up the **Comm. Number** desired and the **Numerical Index** will show the **Functional Group, Section, and Page Number** where the item can be found.

For our [Air Cleaner Filter](#) Example: The **Comm. Number for the Air Cleaner Filter 1322120** is found in the **Numerical Index**, it shows that component will be found on page [I.1.27](#).

# HOW TO USE THIS INDEX

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## ***When the Description is Known - Use the Word Index:***

- Ingersoll-Rand's Word Index makes **any** item easy to locate.
- Use any of the **functional** words in the item description to locate the desired item. The items listed are in alphabetical order in the first column of the index and may be **repeated** several times depending on their **functional descriptions**.

If searching for the *Air Cleaner Filter*, the first listing in the **Word Index** is:

*Air Cleaner Filter*

The item is also listed as:

*Filter, Air Cleaner*

- The alpha-numeric listing in the second column of the index is the location of the item in the manual. The location is identified as; the **Functional Group**, **Section Number**, and **Parts List Page Number**. Example: *I.1.27* would be Functional Group *I*, Section *1*, Page *27*.

The index shows the filter will be found on page *I.1.3* which is the **Parts List** page number for the

*Engine Assembly (58836438)*





## Concrete and Light Compaction Equipment Warranty

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Ingersoll-Rand Company (“Ingersoll-Rand”) warrants to its and its affiliates’ authorized dealers and distributors (“Dealer”), who in turn warrant to the initial user only that each new product of Concrete and Light Compaction Equipment (the “Product”) sold by the Dealer will be free from proven defects in material and workmanship for the earlier to occur of twelve (12) months from the date of shipment to the initial user or eighteen (18) months from date of delivery from the factory to the Dealer.

### **US and Canada**

For Products purchased in the United States or Canada that have remained therein throughout the warranty period, Ingersoll-Rand will provide a new part or repaired part, at its election, in place of any part, which is found upon its inspection to be defective in material or workmanship during the warranty period prescribed above. Such part will be repaired or replaced without charge to the initial user during normal working hours at the place of business of an Ingersoll-Rand distributor authorized to sell the Product or other establishment authorized by Ingersoll-Rand. In order to be eligible for this warranty service, the initial user must present proof of purchase at the time of exercising warranty.

### **Europe, Asia, South America & Latin America**

For Products purchased in Europe, Asia, South America & Latin America, Ingersoll-Rand will provide a new part or repaired part, at its election, in place of any part, which is found upon its inspection to be defective in material or workmanship during the warranty period prescribed above. Labor cost to replace the part is the responsibility of the user. User must present proof of purchase at the time of exercising warranty.

The above warranty does not apply to failures occurring as a result of abuse, misuse, negligent repairs, corrosion, erosion, events beyond the control of Ingersoll-Rand (including weather events, terrorism, etc.), normal wear and tear, alterations or modifications made to the product without express written consent of Ingersoll-Rand, or failure to follow the recommended operating practices and maintenance procedures as provided in the product’s operating and maintenance publications. This warranty does not cover replacement of scheduled service items such as oil, filters, and wear items.

Components and accessories manufactured by others, including, but not limited to, engines, shall carry whatever warranty the manufacturers have conveyed to Ingersoll-Rand to be passed on to the initial user.

THIS WARRANTY IS IN LIEU OF ALL OTHER WARRANTIES EXPRESSED OR IMPLIED, (EXCEPT THAT OF TITLE). ALL IMPLIED WARRANTIES INCLUDING THOSE OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE ARE HEREBY DISCLAIMED. THE REMEDIES SET FORTH HEREIN ARE EXCLUSIVE.

IN NO EVENT SHALL INGERSOLL-RAND OR ANY OF ITS AFFILIATES, SUBSIDIARIES OR AUTHORIZED DEALERS BE LIABLE FOR ANY SPECIAL, INCIDENTAL, INDIRECT OR CONSEQUENTIAL DAMAGES WHATSOEVER, INCLUDING, BUT NOT LIMITED TO, LOSS OR INTERRUPTION OF BUSINESS, LOST PROFITS, OR LOSS OF MACHINE USE, WHETHER BASED ON CONTRACT, WARRANTY, TORT, NEGLIGENCE, STRICT LIABILITY, STATUTE OR OTHERWISE, EVEN IF THEY HAVE BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES. THE TOTAL CUMULATIVE LIABILITY OF INGERSOLL-RAND, ITS AFFILIATES, SUBSIDIARIES AND AUTHORIZED DEALERS WITH RESPECT TO THE PRODUCT FURNISHED HEREUNDER SHALL NOT EXCEED THE PURCHASE PRICE OF THE PRODUCT UPON WHICH SUCH LIABILITY IS BASED, EXCEPT FOR CLAIMS FOR PERSONAL INJURY.



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Portable Power

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