# MD10 MINIDUMPER

## Safety, Operation and Maintenance Manual



## **A** DANGER

SERIOUS INJURY OR DEATH COULD RESULT FROM THE IMPROPER REPAIR OR SER-VICE OF THIS TOOL.

REPAIRS AND / OR SERVICE TO THIS TOOL MUST ONLY BE DONE BY AN AUTHORIZED AND CERTIFIED DEALER.



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#### INTRODUCTION

INTRODUCTION
In this manual you will find all the information and data you need to learn about the MD100000 and to use it properly.
It is very important to read and keep it on hand for safety, correct operation, reliability and
long life of the machine.
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SERVICING THE MD100000: This manual contains safety, operation, and routine maintenance instructions. Stanley Hydraulic Tools recommends that servicing of this equipment, other than routine maintenance, must be performed by an authorized and certified dealer. Please read the following warning.

DANGER	

SERIOUS INJURY OR DEATH WILL RESULT FROM THE IMPROPER REPAIR OR SERVICE OF THIS TOOL.

REPAIRS AND / OR SERVICE TO THIS TOOL MUST ONLY BE DONE BY AN AUTHO-RIZED AND CERTIFIED DEALER.



Tool operators and maintenance personnel must always comply with the safety precautions given in this manual and on the stickers and tags attached to the machine.

These safety precautions are given for your safety. Review them carefully before operating the machine and before performing general maintenance or routine service.

Supervising personnel should develop additional precautions relating to the specific work area and local safety regulations. If so, place the added precautions in the space provided on page 3.

#### GENERAL SAFETY PRECAUTIONS

## **DANGER**

If you have not read this manual or the engine manual, you are not ready to operate the MD100000. Read and understand this manual and any stickers and tags attached to the machine before operation. Failure to do so can result in equipment damage, personal injury, or death.

- Operate the machine in a work area without bystanders. The operator must be familiar with all prohibited work areas such as excessive slopes and dangerous terrain conditions.
- DO NOT operate the machine ACROSS excessive slopes where "tip over" is a hazard.
- DO NOT operate the machine in confined areas where there may be a risk of crushing the operator between the machine and another object.
- DO NOT operate the machine in enclosed spaces. Inhalation of engine exhaust can be fatal.
- DO NOT wear loose clothing that can get entangled in the working parts of the machine.
- DO NOT add fuel to the machine while it is running or still hot.
- DO NOT operate the machine if a fuel odor is present.
- DO NOT operate the machine within 3.3 ft./1 m of buildings, obstructions, or flammable objects.
- Allow the engine to cool before storing the machine in an enclosure.
- DO NOT ride on, or allow anyone else to ride on, the machine at any time.
- Establish a training program for all operators to ensure safe operation.
- DO NOT operate the machine unless thoroughly trained or under the supervision of an instructor.
- Always wear safety equipment such as goggles, ear, head protection, and safety shoes at all times when operating the machine.
- DO NOT inspect or clean the machine while the engine is running. Accidental engagement of the machine can cause serious injury or death.
- Keep clear of all rotating parts, do not put your hands or feet in the chains or under the tracks.

#### SAFETY Continued ...

- DO NOT operate a damaged, or improperly adjusted, machine.
- It is dangerous to use the MD10 with the tracks not tightened.
- Be particularly careful to avoid touching the hot parts of the engine.
- Check that all moving parts are provided with guards as required by law. Be sure to replace any guards that have been removed for any reason.
- Always check that the mechanical block of the loading platform is inserted.
- DO NOT weld or cut with an acetylene torch any surface or component of the equipment. Consult with the Stanley factory before performing any welding or acetylene cutting of the equipment.
- Prevent possible personal injury or equipment damage by having all repair, maintenance and service performed only by authorized and properly trained personnel.
- DO NOT exceed the rated limits of the equipment or use the equipment for applications beyond its design capacity.
- Always keep critical markings, such as labels and warning stickers legible.
- Always replace parts with replacement parts recommended by Stanley Hydraulic Tools.
- Always bear in mind that the use of any type of machine (self-propelled or otherwise) is dangerous. It is therefore very important not to become over confident in using the machine and to always consider it potentially dangerous in any situation. Always use common sense when operating the MD10.

#### • SAFETY SYMBOLS

Safety symbols are used to emphasize all operator, maintenance and repair actions which, if not strictly followed, could result in a life-threatening situation, bodily injury or damage to equipment.

#### **DANGER**

This safety symbol may appear on the machine. It is used to alert the operator of an action that could place him/her or others in a life threatening situation.



This safety symbol appears in these instructions to identify an action that could cause bodily injury to the operator or other personnel.



This safety symbol appears in these instructions to identify an action or condition that could result in damage to the tool or other equipment.

Always observe safety symbols. They are included for your safety and for the protection of the tool.

#### LOCAL SAFETY REGULATIONS

Enter any local safety regulations here. Keep these instructions in an area accessible to the operator and maintenance personnel.

#### TRANSPORTING

- 1. Read the instructions for loading and unloading in this section.
- 2. Use chains and binders to secure the MD10 to the trailer.

#### LOADING AND UNLOADING

- 1. Use loading ramps or a loading dock to load and unload the machine. Ensure loading ramps are strong enough to support the load. When using ramps, do not exceed a 15 degree incline.
- 2. Ensure the wheels of the trailer and the tow vehicle have been chocked front and rear.
- 3. Use the "SLOW" throttle setting when loading or unloading.
- Drive the machine onto the trailer backwards (engine first). This will help prevent instability and keeps the operator "up hill" from the machine during loading and unloading.
- 5. After loading, place chocks at the front and rear of the tracks.



Loading and unloading of any type of machine is dangerous. Never attempt to load or unload the machine without loading ramps or a loading dock. Loading ramps must be strong enough, have a low angle, and correct height. Load and unload the machine on a level surface. Never attempt to load or unload the machine if the ramp incline exceeds 15 degrees. Failure to follow these instructions may result in serious injury or death.

#### **Engine Maintenance**

Follow the maintenance schedule and general maintenance instructions in the engine maintenance and operation manual furnished with the power unit. Normal maintenance includes:

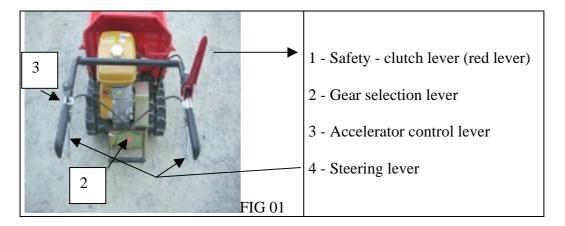
- Service paper filter cartridge every 100 hours of operation.
- Replace spark plugs every 300 hours of operation.
- Change engine oil after first 20 hours of operation, then after every 100 hours of operation. If engine has been operating under heavy load or in high ambient temperature, change the oil every 50 hours of operation.
- Change oil filter when engine oil is changed.
- Check oil level daily.
- Remove dirt and debris from engine with a cloth or brush daily. Do not use water spray.
- Clean air cooling system every 100 hours of operation.

#### MACHINE IDENTIFICATION

The identification data of the machine are shown on the frame near to the bed hook (pict. 02, page 11).

Write the serial number stamped on the machine in this figure so that it will be at hand when required.

The machine is available in two versions: standard bed (pict. 03) and buildings bed (pict. 04, page 11).



#### **POSITION OF MAIN CONTROLS**

#### **MACHINE USE**

The Stanley minidumper shown in this manual has been made to carry only materials and objects.

Any other use will be considered contrary to the use envisaged by the manufacturer who therefore cannot be held liable for injury to persons and damage to property that could result from such use.

Always comply with the operation, maintenance and repair conditions set by the manufacturer.

Always use original accessories and spare parts, which will guarantee the continued safety of the machine.

The manufacturer will not be held liable for damage or injuries resulting from incorrect or unsuitable use or from arbitrary modifications of any kind made to the machine.

#### **OPERATING INSTRUCTIONS**

Before starting the engine, periodically check:

- The engine oil level (see the engine manual) and the gearbox oil level (pict. 05, page 11).
- That all the nuts and bolts are tight.
- That the air filter is clean.
- Fill the fuel tank using a funnel fitted with a very fine filter.
- Once the engine has started open the choke and progressively accelerate.
- Let the engine warm up for a few minutes before starting work.

#### Starting the engine

Follow the instructions in the use and maintenance manual of the engine fitted to the minidumper.

Open the fuel valve, push the accelerator lever halfway open and, if the engine is cold, close the choke positioned on the carburettor. Turn the engine switch on; pull the starting cord vigorously.

#### START-UP AND STARTING WORK WITH THE MD100000 MINIDUMPER

Check the tension of the tracks. To perform this operation you must incline the **unit** on both sides to see if the silhouette of the tracks is linear (pict.12, part 2, page 13). If not, the tracks are not sufficiently tightened and you should adjust them by slackening off the locknut and screwing in the track tensioning bolt (pict. 08, parts 1 and 2, page 12).

Check that the steering levers and the red lever are in working order and then make sure that the bed is hooked on correctly (pict. 11, page 13).

Engage the required gear and slowly lower the red lever. If the gear does not engage straight away, slowly release the lever and try again: this way the MD100000 will start moving.

## NOTE: when the red lever is released the minidumper will stop and brake automatically.

The Stanley MD100000 minidumper has the steering levers on the handle bars and this makes steering very easy:

To turn right or left simply operate the corresponding right or left steering lever. If you find it difficult to make the minidumper turn, please read the section on maintenance.

The minidumper has three gears; two forward and one reverse (pict. 07, page 12)

The use of the second gear is advised for movement over a not too rough ground.

Please note that the sensitivity of the steering increases in proportion to the speed of the machine and that with the empty machine a light pressure on the lever is all that is needed to turn, while when the machine is loaded more pressure is required. If the steering levers and other mechanical parts cause problems, please read the maintenance section.

#### **END OF WORK**

To stop the engine when the work is finished, close the fuel tap and put the red button on the engine in the stop position.

#### TROUBLESHOOTING

Below is a list of minor problems that can occur during the use of the Stanley minidumper and that can be resolved directly by the user:

#### 1) The engine doesn't start:

Carry out the following checks in the order given:

- make sure the gasoline tank is at least half full;
- make sure the petrol valve is open;
- make sure the red button on the engine is not in the stop position;
- make sure gasoline is getting to the carburettor;
- make sure the breather hole in the tank cap is not blocked;
- make sure the carburettor infeed net filter is clean;
- make sure the sparking plug works

Some engines are fitted with a system called oil alert, which shuts off the engine when the machine is on a steep slope or when the oil level is low; please check with the engine manual

to see if your engine is one of these.

2) The gears will not engage:

-Lower the red lever so that the gear change moves and try again;

-Check the gearbox oil level

3) The minidumper is on a climb and is unable to move.

Adjust the belt tensioner with the adjusters near the red lever (pict. 6 part.2, page 12 and pict. 13 part 2, page 13) to tighten the belt. If the minidumper still does not move after this operation, check to see if the belt is worn or broken (pict. 13 part 5, page 13).

4) The minidumper does not brake.

Check that the tensioner return spring (pict. 10 part 1, page 13) is not unhooked or broken or that the belt has not been over-tightened so that the spring (pict. 10 part 1) cannot run the brakes.

5) If the minidumper does not move with the gear engaged check the safety bolts on the driving wheel (pict. 09, page 12).

#### LONG PERIODS OF INACTIVITY

If the machine is not to be used for a long time, it is advisable to take the following precautions:

- Drain the fuel;
- Wash the engine and the machine carefully. Oil the steering mechanisms and the gear and platform unhooking levers;
- Wash the tracks carefully and remove any foreign bodies, especially material that will harden with time;

#### MAINTENANCE AND LUBRICATION

Efficient maintenance and correct lubrication help to keep the machine in perfect working order. The machine is supplied complete with lubricants.

**Engine** – For lubrication follow the instructions in the engine manual. As a rule it is advisable to check the oil level every 4 working hours and to change it every 50 hours. Use Multi-grade 15W40 oil in both summer and winter.

**Gearbox** – Check the oil level every 50 working hours by removing the cap (pict. 05 part 2, page 11) and checking that oil comes out through the hole with the machine horizontal. Change the oil once a year, using 0.739 Qrt of type 85w90.

Check the gearbox-frame fixing bolts yearly.

**Steering** – If you have difficulty steering the Stanley MD100000 minidumper you will need to adjust the steering levers with the special adjusters (pict. 06 part 3, page 12). Slacken off the locknut and unscrew the adjusters to eliminate the play in the cable, which can occur after initial use and/or normal wear. Be very careful not to unscrew the adjusters too much because this can create another problem: the loss of traction. Remember to tighten the locknut when you have finished. If the previous operation does not resolve the problem, check that the cable is in perfect condition: if not, contact your dealer or the manufacturer.

**Traction** – Remember that the adjustment of the belt and the brakes are linked, therefore be very careful because if the belt is over-tightened the braking effect will be lost.

**Belt tensioner** – Grease periodically (pict. 10, page 13). Be careful not to over-grease because the grease could drop on the pulley and cause the belt to slip.

#### To replace the belt make following operations:

- Release the spring. (pict.10 part 1, page 13),

- Take away the cable clamp (pict. 13 part 03, page 13)

- Open the belt drive adjuster on engine pulley (pict. 13 part.1), unscrew the greaser (pict. 10 part

3), unscrew the bracket screws (pict. 10 part 5) and pull the bracket (pict. 10 part 4) toward yourself. Unscrew the gear pulley screw (pict. 10 part 2) and take off the assembly from above.

- Place the new belt on the pulley and insert the pulley on the gear shaft, be careful not to force the insertion to avoid damaging the shaft. Be careful in repositioning the belt adjuster to avoid problems on traction. Our advice is to mark the original position with a felt pen.

After these operations replace the belt guard and restart the unit.

**Track parts** – If the machine has been used in very difficult conditions it is advisable to check the safety bolts (pict. 09, page 12).

If they show a certain wear it is advisable to replace them.

When the work is finished clean and remove the material deposited on the gear wheel, between the guide rollers and the guiding wheel (concrete, mud, grass, etc.).

Periodically check the bushes of the guide rollers (pict. 12 part 1, page 13).

Remember to carry out all these operations with proper tools, gloves and clothing, in a place with sufficient space to avoid possible knocking against other objects or the accidental crushing of the operator during the checks. Obviously, during maintenance operations safety devices may not be operative or be intentionally turned off, therefore it is important to be particularly careful. Operations that must be done with the engine running as such as adjustments of belt tension and steering levers must be done in a well ventilated place or out in the open since a petrol engine produces carbon monoxide that is harmful to health and can cause dizziness and death.

#### RULES FOR A CORRECT USE OF THE MD100000 MINIDUMPER

#### **Important!**

- 1. Do not keep the red lever squeezed for too long at the halfway position; this can overheat the belt and cause it to break suddenly.
- 2. Never leave the machine out in the rain.
- 3. Keep the steering and platform-unhooking mechanisms clean and oiled.
- 4. Do not use force if the gear will not engage.
- 5. Never overload the engine: when smoke comes from the exhaust the engine is overloaded and you must slow down.
- 6. Never work at full throttle.
- 7. Check the track tension (pict. 12 part 2, page 13)

The MD100000 minidumper has a maximum capacity of 300-kg/661-lb. However, it is advisable to assess the load and adjust it according to the ground on which the machine will be used.

Please note that as this is a tracked vehicle it is subject to a considerable pitching movement when passing over bumps, holes, and steps.

It is therefore advisable to cover such stretches using low gear and taking extra care; in such situations we recommend keeping the machine in low gear for the whole stretch.

If the machine is stopped on a steep slope we suggest placing a wedge against one of the tracks.

Even though the minidumper has rubber tracks, remember to be careful when working in adverse weather conditions (ice, heavy rain, and snow) or on types of ground that could make the minidumper unstable.

#### We recommend keeping the following spare parts

- 1 accelerator cable
- 1 clutch cable
- 2 gear wheel safety bolts

#### HOW TO ORDER SPARE PARTS

Always give the frame number of the Stanley MD100000 minidumper. Contact your dealer.

Your dealer is: **Stanley Hydraulic Tools** Division of the Stanley Works 3810 S.E. Naef Road Milwaukie, Oregon 97267-5698 Phone: 503/659-5660 Fax: 503/652-1780

#### **END-OF-SEASON MAINTENANCE**

Wash the machine carefully; change the oil in the engine and in the gearbox. Clean the air filter.

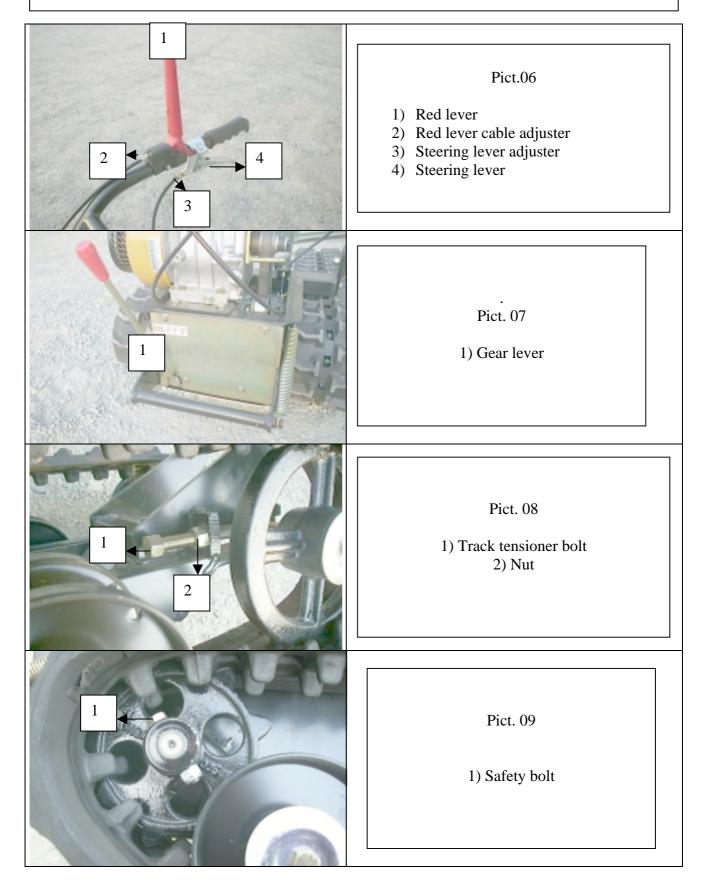
If something has broken or some bolts have come loose during the season, now is the time to put such things right.

Do not keep the machine in an animal barn, near to fertilizers or exposed to the weather since certain parts could be damaged. Put two planks of wood under the tracks so that they are kept aired.

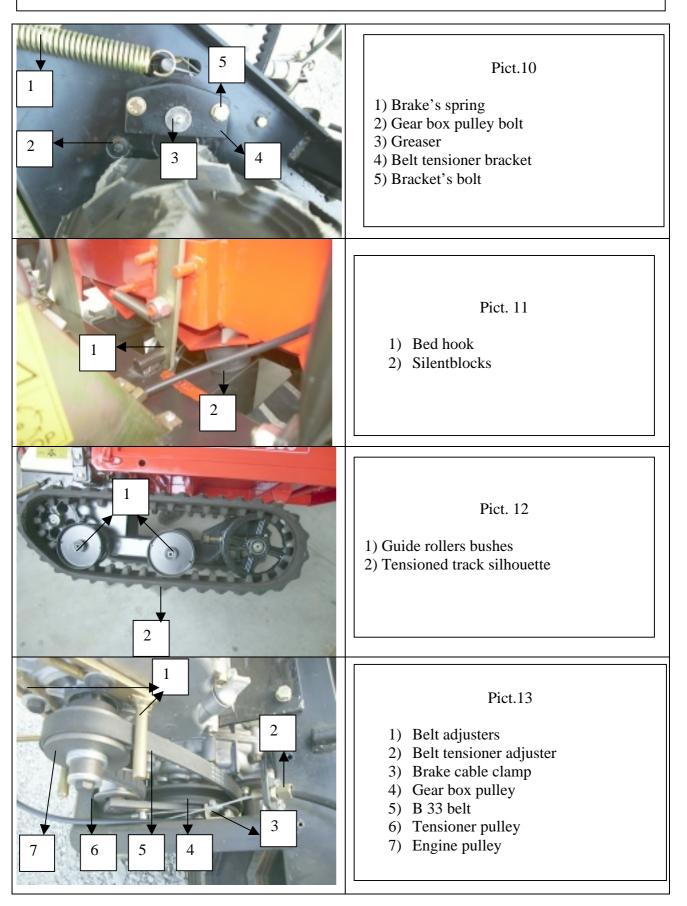
#### PICTURES

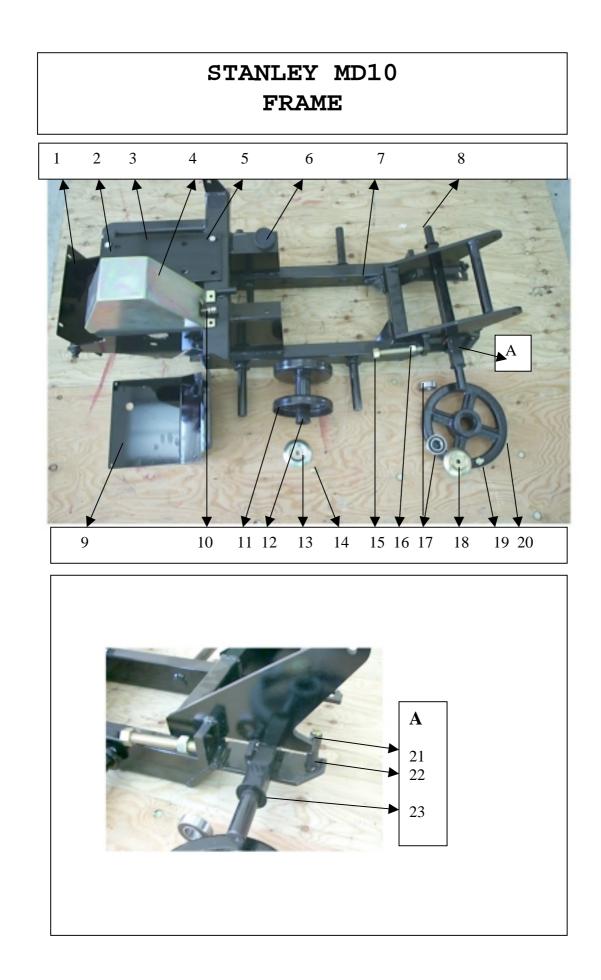


#### PICTURES



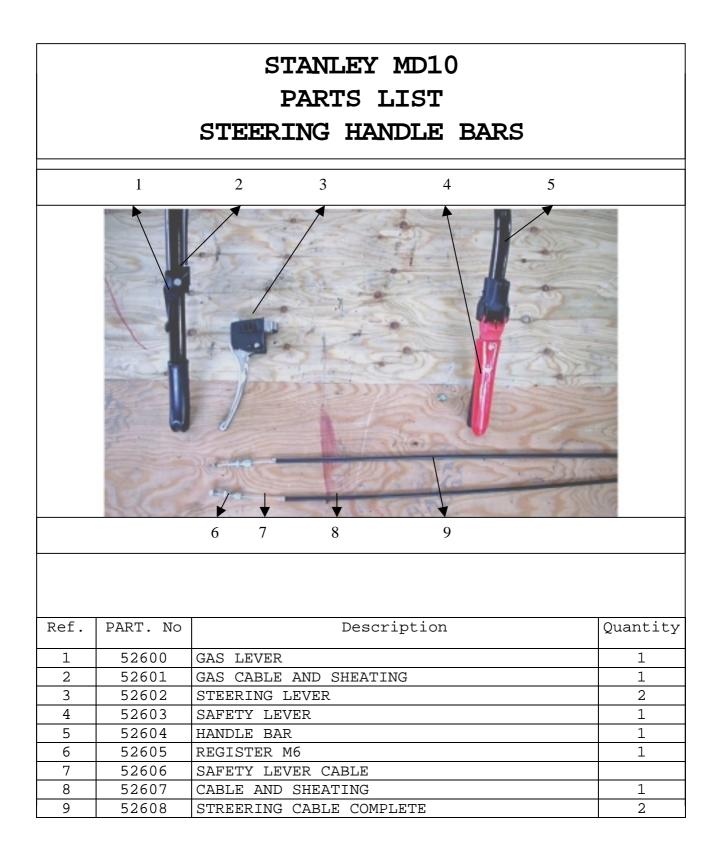
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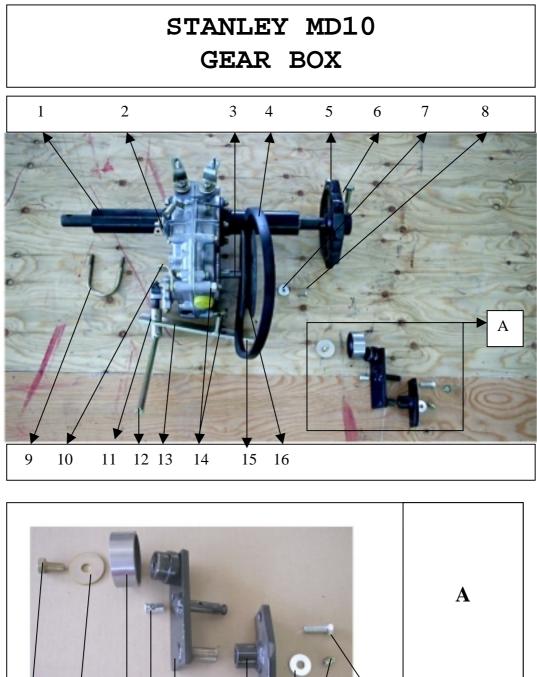




## STANLEY MD10 PARTS LIST (FRAME)

REF.	PART	DESCRIPTION	QUANTITY
NO.	NUMBER		
1	52578	BACK SHIELD	1
2	52579	SCREW 8*25	2
3	52580	ENGINE STAND PLATE	1
4	52581	BELT GUARD	1
5	52582	BOLT 8*50	2
б	52583	FOOTBOARD 280-380-480	2
7	52584	CHASSIS	1
8	52585	FRONT AXLE	1
9	52586	LOWER GUARD	1
10	52587	REGULATOR	1
11	52588	GUIDE ROLLER 280-380-480	4
12	52589	ROLLER BUSH 280-380-480-680	8
13	52590	ROUNDED WASHER	4
14	52591	BOLT 10*25	4
15	52592	TRACK TIGHTENER BOLT 280-380-480-680	2
16	52593	NUT M 16	2
17	52594	BEARING 6205 2RS	4
18	52595	AXLE ROUNDED WASHER	2
19	52591	BOLT 10*25	2
20	52596	FRONT WHEEL 280-380-480	2
21	52597	BOLT 8*70	2
22	52598	SPACER	2
23	52599	WASHER 25	2





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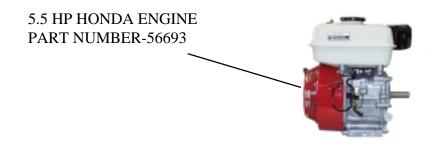
## STANLEY MD10 PARTS LIST (GEAR BOX)

Ref.	Part	Description	Quantity
	No.		
1	52609	GEAR BOX	1
2	52610	BRAKE CABLE HOOK	1
3	52611	PULLEY KEY	1
4	52612	BELT B 33	1
5	52613	DRIVE WHEEL	2
6	52614	BOLT 10*60	2
7	52615	WASHER	1
8	52616	BOLT 6*25	1
9	52617	U BOLT	2
10	52618	SHEATING LOCKING BOLT	1
11	52619	GEAR LEVER BOLT	1
12	52620	GEAR LEVER	1
13	52621	GEAR STAND BOLT	1
14	52622	BOLT 10*90	2
15	52623	COUNTERSUNK SCREW 8*20	2
16	52624	GEAR PULLEY	1
17	52625	SCREW 10*20	1
18	52626	WASHER 10*40	1
19	52627	BELT TENSIONER BEARING	1
20	52628	CHECK PIN	1
21	52629	BELT TENSIONER PLATE	1
22	52630	PLATE STAND	1
23	52631	WASHER 8*20	1
24	52632	GREASER M8	1
25	52579	SCREW 8*25	2

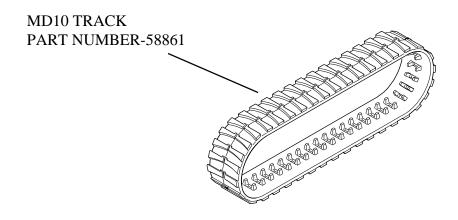
## PARTS LIST CONTINUED...

MD10 BED PART NUMBER-58860 DECAL-09164 STANLEY LOGO

## Engine







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### Bed

#### WARRANTY

Stanley Hydraulic Tools (hereinafter called "Stanley"), subject to the exceptions contained below, warrants new hydraulic tools for a period of one year from the date of sale to the first retail purchaser, or for a period of 2 years from the shipping date from Stanley, whichever period expires first, to be free of defects in material and/or workmanship at the time of delivery, and will, at its option, repair or replace any tool or part of a tool, or new part, which is found upon examination by a Stanley authorized service outlet or by Stanley's factory in Milwaukie, Oregon to be DEFECTIVE IN MATERIAL AND/OR WORKMANSHIP.

#### **EXCEPTIONS FROM WARRANTY**

**NEW PARTS:** New parts which are obtained individually are warranted, subject to the exceptions herein, to be free of defects in material and/or workmanship at the time of delivery and for a period of 6 months after the date of first usage. Seals and diaphragms are warranted to be free of defects in material and/or workmanship at the time of delivery and for a period of 6 months after the date of first usage or 2 years after the date of delivery, whichever period expires first. Warranty for new parts is limited to replacement of defective parts only. Labor is not covered.

FREIGHT COSTS: Freight costs to return parts to Stanley, if requested by Stanley for the purpose of evaluating a warranty claim for warranty credit, are covered under this policy if the claimed part or parts are approved for warranty credit. Freight costs for any part or parts which are not approved for warranty credit will be the responsibility of the individual.

**SEALS & DIAPHRAGMS:** Seals and diaphragms installed in new tools are warranted to be free of defects in material and/or workmanship for a period of 6 months after the date of first usage, or for a period of 2 years from the shipping date from Stanley, whichever period expires first.

CUTTING ACCESSORIES: Cutting accessories such as breaker tool bits are warranted to be free of defects in material and or workmanship at the time of delivery only.

**ITEMS PRODUCED BY OTHER MANUFACTURERS:** Components which are not manufactured by Stanley and are warranted by their respective manufacturers.

a. Costs incurred to remove a Stanley manufactured component in order to service an item manufactured by other manufacturers.

ALTERATIONS & MODIFICATIONS: Alterations or modifications to any tool or part. All obligations under this warranty shall be terminated if the new tool or part is altered or modified in any way.

**NORMAL WEAR:** any failure or performance deficiency attributable to normal wear and tear such as tool bushings, retaining pins, wear plates, bumpers, retaining rings and plugs, rubber bushings, recoil springs, etc.

**INCIDENTAL/CONSEQUENTIAL DAMAGES:** To the fullest extent permitted by applicable law, in no event will STANLEY be liable for any incidental, consequential or special damages and/or expenses.

FREIGHT DAMAGE: Damage caused by improper storage or freight handling.

LOSS TIME: Loss of operating time to the user while the tool(s) is out of service.

**IMPROPER OPERATION:** Any failure or performance deficiency attributable to a failure to follow the guidelines and/or procedures as outlined in the tool's operation and maintenance manual.

MAINTENANCE: Any failure or performance deficiency attributable to not maintaining the tool(s) in good operating condition as outlined in the Operation and Maintenance Manual.

HYDRAULIC PRESSURE & FLOW, HEAT, TYPE OF FLUID: Any failure or performance deficiency attributable to excess hydraulic pressure, excess hydraulic flow, excessive heat, or incorrect hydraulic fluid.

**REPAIRS OR ALTERATIONS:** Any failure or performance deficiency attributable to repairs by anyone which in Stanley's sole judgement caused or contributed to the failure or deficiency.

**MIS-APPLICATION:** Any failure or performance deficiency attributable to mis-application. "Mis-application" is defined as usage of products for which they were not originally intended or usage of products in such a matter which exposes them to abuse or accident, without first obtaining the written consent of Stanley. PERMISSION TO APPLY ANY PRODUCT FOR WHICH IT WAS NOT ORIGINALLY INTENDED CAN ONLY BE OBTAINED FROM STANLEY ENGINEERING.

WARRANTY REGISTRATION: STANLEY ASSUMES NO LIABILITY FOR WARRANTY CLAIMS SUBMITTED FOR WHICH NO TOOL REGISTRA-TION IS ON RECORD. In the event a warranty claim is submitted and no tool registration is on record, no warranty credit will be issued without first receiving documentation which proves the sale of the tool or the tools' first date of usage. The term "DOCUMENTATION" as used in this paragraph is defined as a bill of sale, or letter of intent from the first retail customer. A WARRANTY REGISTRATION FORM THAT IS NOT ALSO ON RECORD WITH STANLEY WILL NOT BE ACCEPTED AS "DOCUMENTATION".

#### NO ADDITIONAL WARRANTIES OR REPRESENTATIONS

This limited warranty and the obligation of Stanley thereunder is in lieu of all other warranties, expressed or implied including merchantability or fitness for a particular purpose except for that provided herein. There is no other warranty. This warranty gives the purchaser specific legal rights and other rights may be available which might vary depending upon applicable law.