

MOLDBOARD PLOUGH

OPERATOR'S MANUAL

AVB

Model

AVB-200H

AVB-300H

AVB-400H



Part No.

4750-2153-01

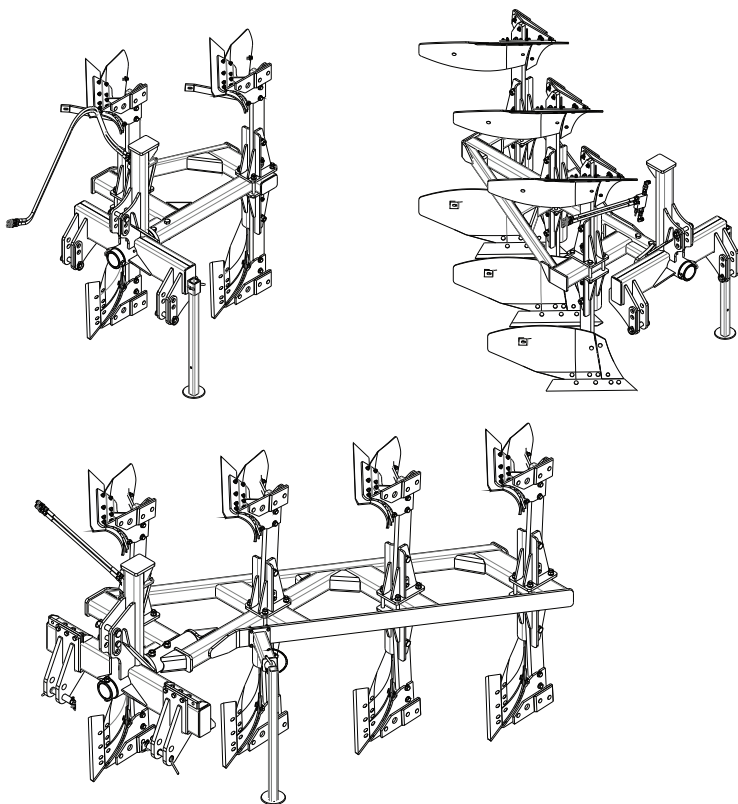
INTRODUCTION

READ THIS MANUAL carefully to learn about the proper operation and maintenance of the machine. Failure to do so may result in personal injury or equipment failure.

THIS MANUAL MUST BE CONSIDERED as an integral part of the machine and must accompany it if it is sold again.

The MEASURES in this manual are given in units of the English system. Use only correct spare parts and hardware.

THE RIGHT SIDE and the LEFT SIDE are determined by looking in the forward direction of the equipment.



4350-2153-01 (Rev. 16/08/18)



TO OUR CLIENTS:

Congratulations on purchasing a product from the Bison® family. We are sure that you have made an excellent choice when purchasing a Bison equipment. We are honored to have you as a client.

Your distributor will perform the technical pre-delivery of your equipment. A trained technician will give you the maintenance and operation instructions that this manual contains and will instruct you on the equipment's applications. Contact your dealer's representative whenever you have questions related to your equipment or need specialized advice. We recommend that you read this manual carefully before operating the equipment. In addition, the time you will use to learn all the features, adjustments and maintenance recommendations, will revert to a team with a long lifespan.

This equipment is covered by a warranty term that your dealer Authorized B will deliver at the time of purchase or technical delivery.

Bison® is a brand of Tecnomec Agrícola, S.A. de C.V., Aguascalientes, Mexico.

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GENERAL INFORMATION

OPERATOR'S MANUAL

In case of loss or destruction of this manual, you can request a new copy to:

TECNOMECAGRICOLA S.A. DE C.V.
Carr. a Paso Blanco, Km 2 No. 400
Col. Vista Hermosa, Jesús María
Aguascalientes, México. C.P. 20905
Tel. 01 (449) 922 47 66, 922 47 60
Fax 01 (449) 922 47 67

The AVB-200H, AVB-300H and AVB-400H Moldboard Plows are designed to work safely, however, take into account the following considerations:

Read this manual carefully to learn about the proper handling and maintenance of your plow.

Write down the serial number at the end of the warranty section to help recover the machine in case of theft. Keep this manual in a safe place. You should not save it in the machine.

The cautious operator is the best guarantee against any accident, because the improper operation of these machines can cause serious injuries and even death.

Make sure there are no people near the plow before starting to operate it.

Be careful when making adjustments and avoid accidents when handling the components of the plow.

To achieve a more efficient and higher quality fallow, it is important to read and execute the adjustment and operation instructions for your plow, because: A well-lubricated implement with the appropriate adjustments, saves time, labor and fuel.

After each day clean and inspect your plow to detect possible faults.

GENERAL INFORMATION

As an authorized distributor, Tecnomec Agrícola offers you original parts. Our trained staff is well informed about the methods required to service your equipment. If you require additional information or personalized assistance, please contact authorized distributor Bison or directly to TECNOMECA AGRÍCOLA S.A. DE C.V.

**YOUR AUTHORIZED DISTRIBUTOR
TECNOMECA AGRÍCOLA, S.A. DE
C.V.**

IT IS AN TECNOMECA AGRÍCOLA POLICY TO CONTINUALLY IMPROVE YOUR PRODUCTS AND RESERVES THE RIGHT TO MAKE ANY CHANGE IN SPECIFICATIONS OR DESIGN, WITHOUT INCURRING THE OBLIGATION TO APPLY THE UNITS SOLD.

CURRENT MODELS CAN VARY IN SOME DETAILS BECAUSE OF THE CONTINUOUS IMPROVEMENT OUR PRODUCTS ARE SUBMITTED

* Some photographs show equipment and / or accessories that are not necessarily included as part of the standard equipment.



INSPECTION LISTS

INSPECTION OF PRE-DELIVERY BY THE DEALER

After the Plow has been fully adjusted, review it and make sure it is ready for an appropriate operation before delivering it to the Customer. The following list is a reminder of the points to inspect. Check each point if it has been found satisfactory or after appropriate adjustments have been made.

- Make sure that the plow has been assembled correctly.
- Mold screws are properly tightened.
- The other hardware has been tightened to the recommended torques (See page 47).
- Lubricate points where required .
- Plow effects reversal correctly on both sides .
- The hydraulic cylinder is correctly positioned.
- Make sure all decals are set correctly. Replace them if necessary.

Date of Assembly_____ Name and signature_____

INSPECTION LISTS

DELIVERY BY THE DEALER

The following list is a reminder of important information that must be transmitted directly to the Client at the time of delivery of the plow.

Mark each point after it has been explained to the Client correctly.

- *Explain* to the Customer that the useful life of this or any machine depends on the lubrication required, as described in your Operator's Manual.
- Give the Operator's Manual to the Customer and fully explain all operation, lubrication and maintenance adjustments.
- Explain the importance of proper and safe operation of the machine. Emphasize the importance of the decals, as they prevent the operator from procedures and unsafe operating conditions.
- Notify the Client of the attachments and options that are available..
- Wwhen the plow is transported on roads or highways during the day or night, Lights or safety devices must be used to alert operators of other vehicles. Advise the Client to consult the official traffic regulations of the locality.
- Show the customer how to hook the machine and how to operate the controls.
- Explain to the Customer the registration of the serial number of your Plow in the space provided at the end of this Manual.
- Complete the Delivery and Wwarranty forms, listing the serial number of the machine.
- Explain the guarantee. Make a format where the Client and the distributor sign.
- The machine has been delivered ready for use and the Customer has been informed about the operation and care of it.

Date of Delivery _____ Name and signature _____

Owner Registration

Name

Town

City

State

Serial number

Model number

Date of Purchase _____

INSPECTION LISTS

INSPECTION AFTER SALE

It is suggested that the following points be checked constantly during the first hours of operation.

- Check the machine completely and certify that there are no damaged parts. Repair them or replace them if necessary.
- Check for loose or missing hardware.
- If possible, operate the Plow to verify that it is working properly.

- Review the Operator's Manual completely with your Client and emphasize the importance of regular and proper lubrication as well as safety precautions.

Inspection Date_____ Name and Signature_____

INSPECTION BEFORE EACH OPERATION

Lubricate the points that are required daily and those that are required to lubricate at a recommended time.

- Make sure the hardware is not loose and there are no damaged or missing parts.
- verify that the stop screws have the same working length.
- Check that the tractor hitch is secure.

INSPECTION BEFORE EACH SEASON

- Make sure the recommended lubrication has been done.
- Make sure that the appropriate adjustments are made in the plow to obtain better results.
- Make sure the hydraulic cylinder works properly.

SPECIFICATIONS

AVB-200H, AVB-300H, AVB-400H

Specifications		AVB-200H	AVB-300H	AVB-400H
Type of Hitch		3 Pt., Cat. II y Cat. II ER	3 Pt., Cat. II y Cat. II ER	3 Pt., Cat. II, III y Cat. III ER
Variable cutting width	mts	0.75-0.85	1.14-1.28	1.52-1.83
Max depth	pulg	10" - 14"	14"	14"
Reversión		Hydraulics	Hydraulics	Hydraulics
Cylinder	pulg	3 x 8	3 x 8	3 x 8
Bodies		2	3	4
Power required	hp	50-80	90-120	120-150
Approximate weight	kgs	513	660	1030

* Tecnomec Agrícola, S.A. of C.V. reserves the right to modify the specifications whenever it deems necessary and without prior notice.

SAFETY RULES

SAFETY SIGNS

The safety alert symbol means **ATTENTION! BE ALERT! YOUR SECURITY IS AT STAKE!** of security indicates important safety messages in this manual. When you see this symbol, carefully read the message below and be alert to the possibility of personal injury or death.



DISTINGUISH SECURITY MESSAGES

Whenever you see the words and symbols shown below and used in this manual, you **MUST** take the instructions into account as they relate to personal safety.

DANGER: Indicates an imminently hazardous situation which, if not avoided, will result in **VERY SERIOUS INJURY OR DEATH**.

WARNING: Indicates a potentially hazardous situation which, if not avoided, could result in **DEATH OR SERIOUS INJURY**.

CAUTION: Indicates a potentially hazardous situation which, if not avoided, could result in **LIGHT INJURY**.



DANGER



WARNING



CAUTION

OBSERVE THE SECURITY MESSAGES

Before operating this equipment. It is **YOUR** responsibility to read and understand the safety section in this manual. Remember that **YOU** are the key to security. Good security practices are not only to protect you, but those around you. Study all aspects of this manual and make them part of your safety program. Note that this security section has been created only for this type of equipment. Put into practice the other usual precautionary procedures and above all, **REMEMBER THAT SECURITY IS YOUR RESPONSIBILITY. YOU CAN AVOID SERIOUS INJURY OR EVEN DEATH.** This security section aims to highlight some of the basic security situations that may occur during the normal operation and maintenance of this equipment, suggests possible ways to handle such situations. This section does **NOT** replace the security procedures that appear in other sections of this manual.



NOTE: This manual covers general safety practices for this equipment.

SAFETY RULES

DO NOT ADMIT PASSENGERS ON THE MACHINE

Only the operator is allowed on the machine. Passengers run the risk of being injured by foreign objects or falling from the machine. In addition, passengers obstruct the operator's vision, which results in an unsafe driving mode on the part of the operator.



MANAGE FUEL SAFELY, AVOID FIRE

Handle the fuel with care, it is flammable. Do not refuel while smoking or near flames or sparks. Always turn off the engine before refueling. Fill the fuel tank outdoors. Prevent fires by keeping the machine free of garbage, grease or accumulated dirt. Always clean spilled fuel.

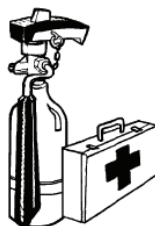


BE PREPARED IN CASE OF EMERGENCY

Due to the flammable nature of many substances, there must be a fire extinguisher within reach of the operator.

Have a first aid kit on hand in case of minor cuts and scrapes.

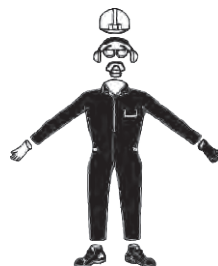
Have local emergency numbers near you.



WEAR ADEQUATE CLOTHING

Avoid wearing loose clothing, use appropriate safety equipment according to the type of work.

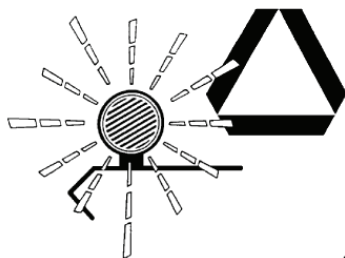
The safe handling of the equipment requires the operator's full attention. Do not use headphones to listen to the radio when you are traveling on roads.



SAFETY RULES

USE SAFETY LIGHTS AND ACCESSORIES

Slow vehicles, tractors, dragged or suspended equipment can represent a risk when being transported or towed by a road to be difficult to see, especially at night. Avoid injury or even death that can result from a collision with other vehicles. It is recommended to use safety lights and accessories when driving on public roads. To improve visibility, use all the lights available on the tractor. The additional installation of rotating warning lights is recommended. Verify that the signaling devices are in good condition. Replace immediately a safety accessory, lost or damaged signaling devices.



SAFE STORAGE OF ACCESSORIES

Accessories that are not stored properly may fall and cause injury including death. Store any accessory or equipment in a safe way avoiding the fall of them. Keep minors and unauthorized adults away from the area.



TRANSPORT OF THE PLOW WITH SAFETY

For proper Plow transportation, do not use under 15-1 / 2 "to 38-5 / 8" tires

Transport the Plowing at a top speed of 10 km / h (6 mph)

Be sure to use the seat belt if your tractor has a rollover guard.

Slow down when transporting the Plow over uneven terrain.

Always transport the plow at a speed that allows adequate control of command.

Use the front weights required on the tractor for good stability and efficient operation.



SAFETY RULES

CHECK HOSES FOR DAMAGE

Hydraulic hoses fail due to physical damage, bending, time and exposure to the weather.

Periodically check the hoses.

Replace damaged hoses.

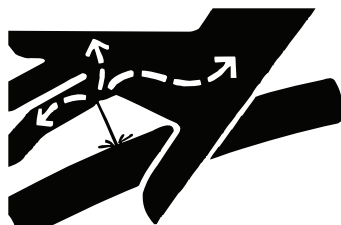
Avoid high pressure fluids:

Fluids escaped under pressure can penetrate the skin causing serious damage.

Relieve system pressure before making repairs, adjustments or disconnecting any hose. Tighten all connections before applying pressure to the system.

To locate an oil leak use a piece of cardboard, never expose any part of the body. Use appropriate protections on hands and eyes.

If an accident occurs, go to the doctor immediately. Any fluid inoculated under the skin should be removed surgically in a few hours, otherwise, an infection could result causing gangrene. Doctors not familiar with this type of injury should refer to a medical source who is knowledgeable about them.



SAFE MAINTENANCE

Familiarize yourself with the maintenance procedures before carrying out the work. The work area should be clean and dry.

Do not carry out any work on greasing, repairing or adjusting the plow if it is stuck and with the tractor engine running. Put all tractor controls in neutral and disconnect all electrical functions. Lower the plow to the ground, make sure there is no pressure in the hydraulic system, stop the tractor engine and remove the ignition key.

Carefully support all the elements of the implement that are lifted to carry out maintenance work.

All components must be in good condition and correctly installed. Repair damages immediately. Change any worn or broken part. Keep all components of the implement free of grease, oil and accumulated dirt.



SAFETY RULES

REMOVE THE PAINT BEFORE WELDING OR HEATING

Avoid inhaling potentially toxic smoke or dust. When welding or using a torch on an area with paint, toxic smoke can be released. Do this work outdoors or in a room with good ventilation. Dispose of paint and solvent properly.



Remove the paint before welding or heating with a torch.

- If the paint is removed with a sandblasting or a mechanical sander, avoid inhaling the dust. Use a suitable protective mask.
- In case of using solvent, clean the treated surface with water and soap before welding. Remove from the immediate vicinity the solvent container and other flammable material. Ventilate the room for at least 15 minutes before welding or heating.

PROTECTION AGAINST NOISE

Prolonged exposure to noise can affect the ear. As a preventive measure, protect your ears with earmuffs or plugs.



SECURITY DECALS

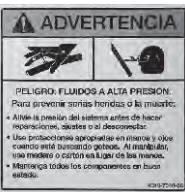
DECAL OF WARNING 4310-7120-06

(BLADE DROP) It is located in the frame (The location may vary from one model to another).



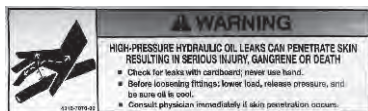
DECAL OF WARNING 4310-7300-06

(HIGH PRESSURE FLUIDS) It is located in the front part of the coupling frame.



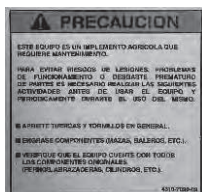
DECAL OF WARNING 4310-7070-00

(HIGH PRESSURE FLUIDS) It is located in the hydraulic cylinder.



DECAL OF WARNING 4310-7070-00

It is located in the frame. location can vary from one model to another).



PREPARATION OF THE TRACTOR

REQUIRED TRACTOR POWER (PTO)

MODEL	RECOMMENDED POWER HP (TDF)	CATEGORY OF THE THREE-POINT HITCH
AVB-200H	50-80 hp	Cat. II & Cat. II ER
AVB-300H	90-120 hp	Cat. II & Cat. II ER
AVB-400H	120-150 hp	Cat. II, III & Cat. II, III ER

PULL BAR

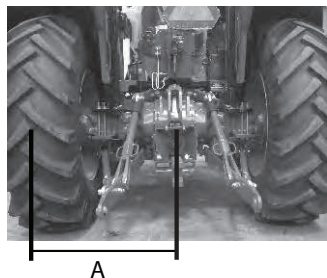
To avoid interference from the plough with the pull bar of the tractor, place it in the short position. See the operator's Manual for your tractor.



TIRE ADJUSTMENT

Adjust the rear wheels of the tractor so that the distance (A) from the center line of the tractor to the center line of the tires is 84 cm (33 ") for the model AVB-200H, 91 cm (36") for the model AVB-300H and 91 cm (36 ") for the model AVB-400H, according to the standard ASABE STANDARDS 2010. Consult the Operator's Manual of your tractor.

Adjust the front wheels centered with respect to the rear wheels. Consult the Operator's Manual of your tractor.



STABILIZER CHAINS

Stabilizer chains and stabilizer blocks allow or eliminate lateral movement.

When the implement is to be transported, place the chains or telescopic arms in the "No oscillation" position.

When the implement is to be operated, place the chains or telescopic arms in the "Oscillation" position.

Consult the Operator's Manual of your tractor.



PREPARATION OF THE TRACTOR

FLOATING HITCH

Place the lift arms of the tractor in the position of "Not float".

Before you begin working in the field, place the depth in the middle position control lever.

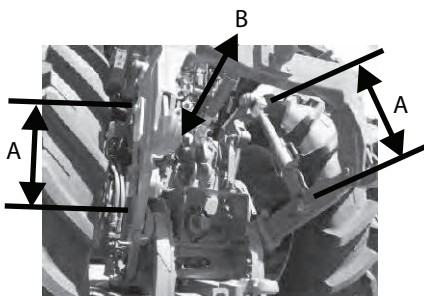


LENGTH OF LIFT CONNECTIONS

For normal working conditions, lift arms length (A) must be equal.

The central arm length (B) must be such that adjusting plow lengthwise.

In unusual conditions, whether to plow deeper or more superficially, a slight increase or reduction in recommended lengths may be necessary. The final adjustment should be made in the field.



The lengthwise leveling of the plow is regulated by the central coupling arm of the tractor.

REVIEW OF BALLAST AND TIRE PRESSURE

Add enough weight to stabilize the tractor when operating on inclined surfaces or in other adverse conditions. Skating of the drive wheels must not be greater than 10% (See your tractor operator's manual).

To ensure adequate stability, adjust ballast, tire spacing and tire inflation pressure in accordance with your tractor operator's manual by ensuring two wheels on the same axle have the same.

Both wheels must have the same pressure.

PREPARATION OF THE TRACTOR

USE THE CORRECT HOSE COUPLINGS

The tractor can be equipped with a selective control valve that accepts a standard connector as recommended by ISO and SAE. These connectors allow a greater flow and therefore reduce the lifting time. It is recommended that implement connectors be converted to ISO type.

TRACTOR BRAKES

Transport the tractor only if the brakes are in good condition.

PREPARATION OF THE PLOW

BEFORE OPERATING THE MACHINE

Perform the following procedure before operating the plow:

Check that the hoses and hydraulic cylinder connections are in good condition.

Make sure that hydraulic cylinder hoses do not hang below the main frame.

Make sure there are no objects on the plow and the tractor.

With the plow attached to the tractor, raise the plow slowly and make sure there is no interference. Then lower the Plow again.

With the plow attached to the tractor, raise the plow slowly and operate the lever of the hydraulic system slowly, in order to check that the spouts do not rub against hoses or components of the plow.

Make sure that the lift arms and center arm are adjusted correctly (See Lifting connections length in the Tractor preparation section on page 13).

Check that the hardware is properly adjusted. (See the torque chart on page 44 and 45).

Check for loose, damaged or missing parts. Tighten or replace as necessary.

Lubricate the Plow as indicated in the maintenance section on page 21.

OPERATION

PLOW HITCH

! ATTENTION: To avoid personal injury or damage to the machine when an implement is engaged, place the tractor's transmission in the parking position and check for interference along the PTO's hitch. Never stand between the tractor and the tractor. the implement.

NOTE: The illustrations in the following procedure show a tractor model as a reference. The controls and the characteristics of your tractor may be different. Consult the operator's manual for your tractor.

- 1.- Place the reverse tractor in front of the plow, slowly approach it to the hitch points, leaving them as aligned as possible with respect to the lift arms.
- 2.- Apply the parking brake and place the transmission in the parking position.
- 3.- Turn off the tractor and remove the key.
- 4.- Remove the * PIE bolts (B) and the ** PSE bolt (C)

IMPORTANT: To avoid accidents due to breakage of the hitch pins, replace them when the wear is excessive.

- 5.- Align the left draw arm (D) with the lower left hook point (E) and install the FOOT Bolt (B). Repeat this step joining the upper coupling point (F) with the central coupling arm (G) and secure them with the PSE Bolt

C). Do the same with the lower right hook point (H) with the right draw arm (I) and install the other foot bolt (B).

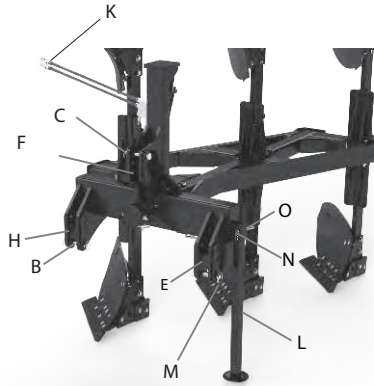
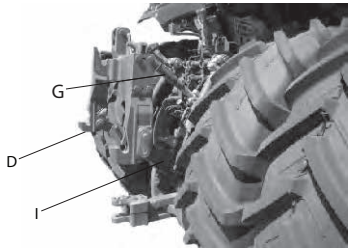


ATTENTION: Before connecting the hoses of the hydraulic cylinder to the tractor, eliminate the pressure of the hydraulic system. To do this, switch off the tractor engine and move the control lever of the hydraulic cylinder back and forth several times.

- 6.- Connect the cylinder hoses (K) to the couplings of the tractor. (Refer to the operator's manual of your tractor for the correct performance of this procedure)
- 7.- Reverse the position of the pedestal (L) and secure it with the bolt of the stop (O) and secure 'R' (N) .
- 8.- Start the tractor engine .
- 9.- Slowly move the lift control lever to raise the Plow. Check that there is no interference. Lower the plow to ground level and adjust if necessary.

* Lower hitch point

** Top hitch point.



NOTATION:

- B_ Pin of the PIE.
- C_ Pin of the PSE.
- D_ Arm of left pull.
- E_ Lower point of the left latch.
- F_ Upper hitch point.
- G_ Central hitch arm.
- H_ Lower right hitch point.
- I_ Right pull arm.
- K_ Hoses.
- L_ Pedestal or parador assembly.
- M_ Farm Safety bolt.
- N_ Safe
- 'R'O_ Stand Pin

OPERATION

DISENGAGE THE PLOW



ATTENTION: To prevent personal injury:

- 1.- Park the machine on a flat surface.
- 2.- Place the parking brake and the transmission in the **PARKING** position.
- 3.- Turn off the tractor and remove the key.

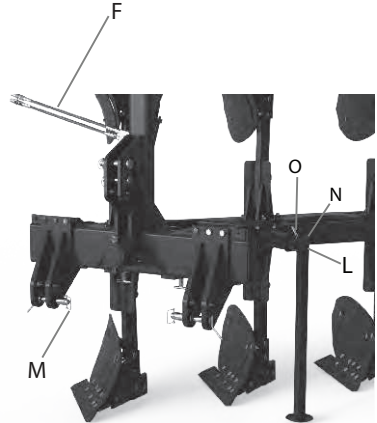
DISENGAGE

- 1.- Park the machine on a flat surface.
- 2.- Slowly move the lift control lever to lower the machine to ground level.
- 3.- Put the parking brake and the transmission in the **PARKING** position.
- 4.- Turn off the engine and remove the key.
- 5.- Lower the pedestal (L) and secure it with the stand pin (O) and secure 'R' (N).



ATTENTION: Before disconnecting the hoses from the hydraulic cylinder on the tractor, eliminate the pressure in the hydraulic system of the tractor. To do this, turn off the tractor engine and move the hydraulic control lever several times back and forth (both directions).

- 6.- Remove the hoses (F) from the cylinder of the tractor's valve box.
- 7.- Remove the pins from the foot and the pin from the pse of the draw arms and from the central hitch arm of the tractor.
- 8.- Remove the tractor carefully.
- 9.- Reinstall the foot pins and the pse pin to the plow.



NOTATION:

F_ Hoses.
L_ Pedestal hitch.
M_ Agricultural Safe.
N_ Lock
'R' O Stand Pin.

OPERATION

PREPARATION OF PLOWING FOR TRANSPORTATION

Lift the plow to the fully elevated position using the tractor lift controls. If equipped, adjust the lift control lever to the secured position (See tractor operator's manual).

NOTE: In order to achieve a greater height for transport, reduce the distance of the center arm of the hitch.



ATTENTION: To prevent injury or death to yourself or to another person, comply with the following transportation instructions:

Operate the tractor at a safe speed, reduce the speed considerably when driving in difficult conditions.

Stop the tractor slowly.

Never operate more than 10 km / h (6 mph).

BEFORE GOING TO THE FIELD

Make sure all the points indicated in the Preparation section of the Tractor and the Plow are met.

ADJUSTMENT IN THE FIELD

1.- Adjust the lifting arms of the tractor of the machine to level it from side to side.

2.- Advance the tractor at the recommended speed of 5 to 6 km / h, lower the plow by operating the depth lever of the tractor until the plow deepens and then labore about 10 meters in a straight line to a fixed point without looking back and stop the tractor.

3.- Measure the depth and verify that it is the desired one. If it is not the desired one, regulate by means of the hydraulic lift until the desired one is obtained.

4.- Advance and fill another 10 meters and measure the depth of the tilled ground and if you work to the correct one, place the mechanical stop that the tractor has next to the depth lever (See the operation manual of your tractor).

5.- At the end of the first journey, slow down and raise the plow to get it off the ground and back as if to take a new path next to the first.

6.- Position the tractor so that the front wheel is rubbing its inner surface with the wall that forms the boundary between the carved strip and the uncut terrain.

7.- Work another 10 meters but this time and looking from behind the tractor but placed on the center line of the tractor, check that the plow works horizontally to the ground.

8.- If the plow is not horizontal to the ground, regulate this misalignment through the stops that limit the degrees that rotate during the reversion.

9.- Level the plow longitudinally adjusting the central arm of the tractor so that the spouts penetrate to the same depth.

10.- Once the horizontality of the plow has been regulated, start work at the recommended agronomic speed of 5-6 km / h (The speed can change due to local conditions).

11.- Check that the plow worked correctly and if it was not, consult the section on Solutions for certain setbacks (page 29).

12.- After a few hours of operation, retighten all the screws to avoid pieces breaking. (See the bolt torque tables on page 47).

OPERATION

SECURITY PROCEDURE WHEN OPERATING THE PLOW

ATTENTION

Never operate the plow when other people are near the machine.

Before activating the machine, lower it to ground level.

Under most conditions, the recommended operating speed is 6 km / h (4 mph).

When ground conditions make it necessary to reduce the speed of the tractor: Change to a lower speed in the transmission instead of reducing the engine speed. The engine will maintain its speed range and keep the Plow at an optimum speed.

Operate the machine only from the operator's seat.

Slow down when you are turning around or while working in difficult ground conditions.

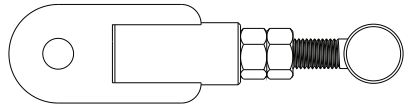
Avoid wells when operating on inclined surfaces. It can cause the tractor to tip over.

When you finish operating the tractor, place the parking brake and the transmission in the PARKING position, turn off the tractor and remove the key before getting off the tractor.

Use the seat belt if your tractor has a rollover guard (ROPS).

ADJUSTING THE DEPTH CONTROL WHEEL To obtain the desired depth, adjust the length A of the stop screw. Use the following table.

LENGHT TO	DEPTH OF WORK
5/8	14"
7/8	13"
1	12"
1 1/4	11"
1 1/2	10"



DEPTH CONTROL WHEEL OPERATION

With the previously adjusted equipment, work the plow in the aforementioned manner so that the wheel starts running.

To make the inversion of the wheel, it is enough to make the inversion of the plow.

MAINTENANCE

LUBRICATION AND MAINTENANCE

⚠ ATTENTION: Being hit by the moldboards can cause serious injury or death.

⚠ ATTENTION: To prevent unexpected movement of the machine: Before lubricating, adjusting or servicing the machine connected to the tractor, check the following steps:

- 1.- Park the plow on a flat surface.
- 2.- Set the parking brake and transmission in the parking position.
3. Turn off the tractor engine and remove the key.
4. Lower the pedestal.

GREASE

Choose the most suitable type of grease based on the NLGI consistency and the temperatures that may exist in the interval until the next grease change. You can use greases that meet the following standard: Classification of consistency NLGI GC-LB.

Alternative and synthetic lubricants.

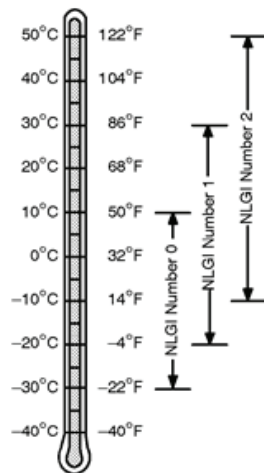
The conditions of certain geographical areas may require the use of lubricants or special lubrication techniques that are not listed in the operator's manual.

It is possible that some lubricants are not available in the area. In this case, consult your distributor, who will provide you with the most up-to-date information and recommendations.

Storage of Lubricants.

Your equipment can operate at maximum efficiency, only if you use clean lubricant.

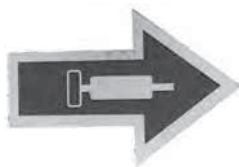
Use clean containers to handle all lubricants and store them in an area protected from dust and moisture.



MAINTENANCE

LUBRICATION OF THE PLOW REVERSION SYSTEM

Apply grease in the indicated places at intervals of 25 hours. Use a mechanical grease injector.



CHANGE OF THE POINTS

These are changed when they wear out.



RECOMMENDATIONS

STORAGE AT THE END OF EACH SEASON

- 1.- Store the machine in a dry place.
- 2.- Thoroughly clean the plow, residues of grass or dirt will be temporary deposits of moisture and cause oxidation.
- 3.- Lubricate the machine completely according to the Lubrication section.
- 4.- Paint all the parts where the paint has been scraped.
- 5.- Check for worn, lost or broken parts. Make a list of the spare parts that you will need in the following season and request them in a timely manner, so your dealer can expedite the delivery of your spare parts and install them during the recess of your machine.
- 6.- Apply a good quality anticorrosive or a thick layer of grease to the moldboards.

PREPARATION AT THE BEGINNING OF EACH SEASON

- 1.- Lubricate the machine completely according to the Lubrication section.
- 2.- Clean the complete plow
- 3.- Tighten all the screws and nuts (See torque values in the torque specifications section).
- 4.- If major moving parts have been changed, give the necessary work settlement.

ASSEMBLY

AVB-200H

1.- Mount the hitch frame (2) and the frame (1) in the stand and insert the stop (3) fixing it with the pin (11) and lock (27).

2.- Insert the bushings (6) into the housing of the hitch frame.

3.- Insert the king pin (5) into the housing of the frame and fix it with the screws (20), pressure washers (26) and nuts (23).

4.- Assemble the king-frame-pin assembly with the coupling frame, fit the king-pin cover (7) and secure it with the screw (21) and the nut (22).

5.- Insert the pins (9 and 10) into the hitch frame and secure them with the locks (28).

6.- Screw the RAP connectors. (12) with the connectors (15) to the hose (29).

7.- Connect the connectors (14 and 16) and the cylinder tubing (4) to the flow reversing valve (13).

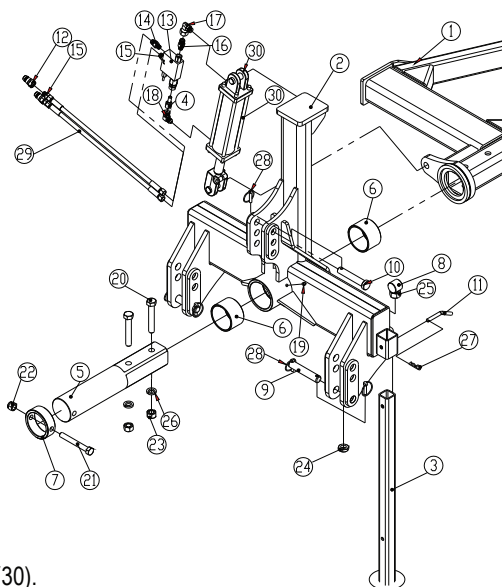
8.- Connect the elbows (17 and 18) to the cylinder (30).

9.- Connect the connector (16) to the elbow (18) and then the cylinder tubing to the elbow (17).

10.- Connect the hoses (29) to the connectors (14 and 15).

11.- Assemble the cylinder and the frame-hitch frame assembly starting by connecting the side of the cylinder with the hitch frame and then the side of the rod with the handle of the frame.

12.- Mount the stops (8) on the hitch frame and fix them with the nuts (25) and lock nuts (24).



ASSEMBLY

AVB-300H

1.- Mount the hitch frame (2) and the frame (1) in a stand and insert the stop (3) fixing it with the pin (25) and secure (23).

2.- Insert the bushings (5) in the housing of the hitch frame.

3.- Insert the king pin (6) into the housing of the frame and fix it with the screws (30), pressure washers (10) and nuts (11).

4.- Assemble the king-frame-pin assembly with the hitch frame, fit the kingpin cover (7) and secure it with the screw (12) and the nut (9).

5.- Insert the pins (24 and 8) into the coupling frame and secure them with the safety locks (14).

6.- Screw the RAP connectors. (18) with the connectors (19) to the hose (17).

7.- Connect the connectors (19, 20, 21) and the cylinder tubing (4) to the flow reversing valve (13).

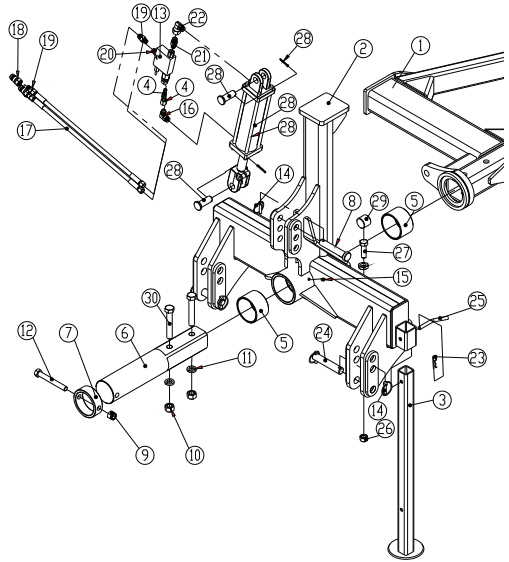
8.- Connect the elbows (22 and 16) to the cylinder (30).

9.- Connect the connector (21) to the elbow (22) and then the cylinder tubing to the elbow (16).

10.- Connect the hoses (17) to the connectors (19 and 20).

11.- Assemble the cylinder and the frame-hitch assembly starting by connecting the side of the cylinder with the hitch frame and then the side of the rod with the handle of the frame.

12.- Mount the stops (29, 27) in the hitch frame and fix them with the nuts (26).



ASSEMBLY

AVB-400H

1.- Mount the hitch frame (1) and the frame (2) on some stands.

2.- Mount and fix the arm of the stand (3) to the frame (2) by means of the screws (40), the pressure washers (41) and the nuts (31).

3.- Assemble the stand (4) to the stand arm (3) and secure it with the pin (3) and the latch (3).

4.- Insert the king pin (8) into the housing of the frame and fix it with the screws (25), pressure washers (34) and nuts (28).

5.- Insert the bushings (11) in the housing of the coupling frame.

6.- Assemble the king-frame-pin assembly with the hitch frame, fit the king-pin cover (12) and secure it with the screw (24), thrust washer (33) and nut (27).

7.- Insert the pin (13) in the hitch frame and secure it with the latch (36).

8.- Mount the hitch lugs (5) in the coupling frame (1) using the screws (23), pressure washers (32) and nuts (26).

9.- Fit the pins (6) in the hitch lugs (5), insert them in the bushings (9) and secure them with the safety locks (37).

10.- Screw the RAP connectors. (15) with the connectors (19) to the hose (38).

11.- Connect the connectors (17,18,19) and the cylinder tubing (7) to the flow reversing valve (16)

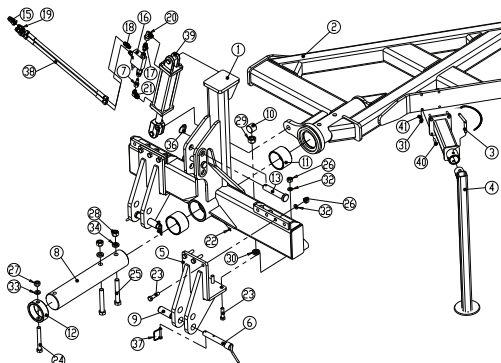
12.- Connect the elbows (20 and 21) to the cylinder (39).

13.- Connect the connector (17) to the elbow (20) and then the cylinder tubing (7) to the elbow (21).

14.- Connect the hoses (38) to the connectors (18 and 19).

15.- Assemble the cylinder and the frame-hitch frame assembly starting by connecting the side of the cylinder with the hitch frame and then the side of the rod with the handle of the frame.

16.- Mount the stops (10,29) in the hitch frame and fix them with the nuts (29) and lock nut (30).



ASSEMBLY

SHANK CARRIER, SHANK AND RIGHT MOLDBOARD

1.- Mount the knife (27) to the moldboard (1) and fix it with the screws (5), pressure washers (20) and nuts (13).

2.- Mount the grid (26) to the mold carrier (1) and fix it with the screws (5), the pressure washers (20) and nuts (13).

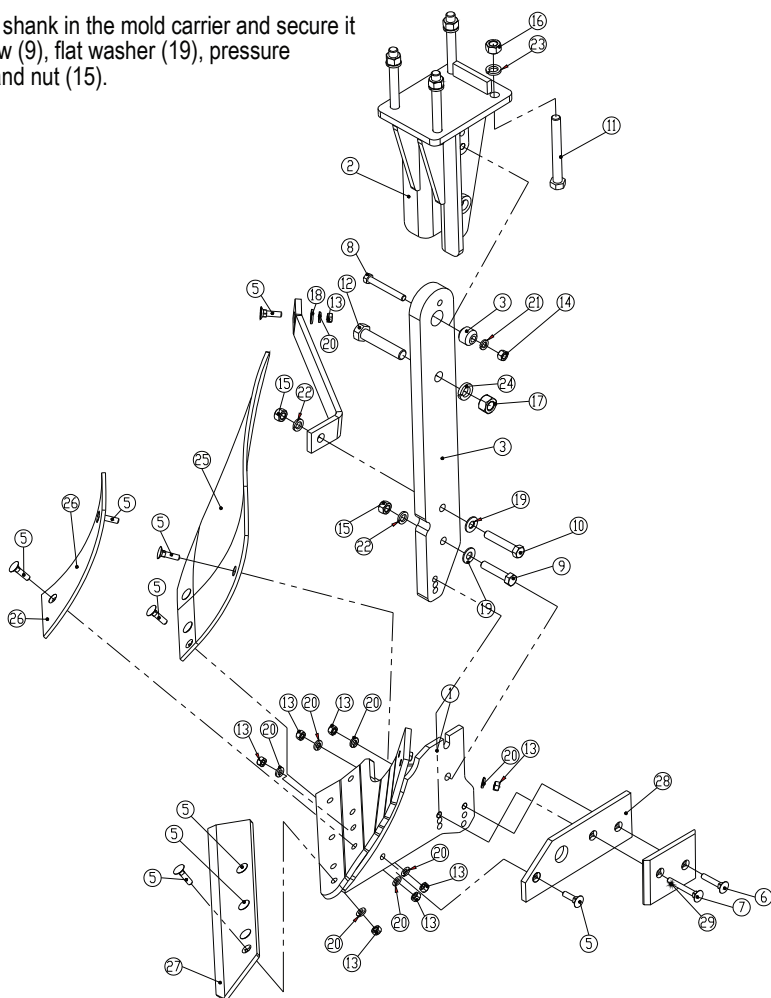
3.- Mount the moldboard (25) to the mouldboard carrier (1) and fix it with the screws (5), pressure washers (20) and nuts (13).

4.- Mount the shank in the mold carrier and secure it with the screw (9), flat washer (19), pressure washer (22) and nut (15).

5.- Screw the hearth to the shank with the screw (10), flat washer (19), pressure washer (22) and nut (15) and then to the moldboard (25) with the screw (5), pressure washer (13), flat washer (18) and nut (13).

6.- Mount the heels (28 and 29) to the moldboard carrier (1) by means of the screws (5, 6 and 7), pressure washers (20) and nuts (13).

7.- Assemble the shank carrier with the shank using the screws (12 and 8), pressure washers (21 and 24), nuts (14 and 17) and the bushing (3).



ASSEMBLY

SHANK CARRIER, SHANK AND LEFT MOLDBOARD

1.- Mount the knife (27) to the moldboard (1) and fix it with the screws (5), pressure washers (20) and nuts (13).

2.- Mount the grid (26) to the mold carrier (1) and fix it with the screws (5), the pressure washers (20) and nuts (13).

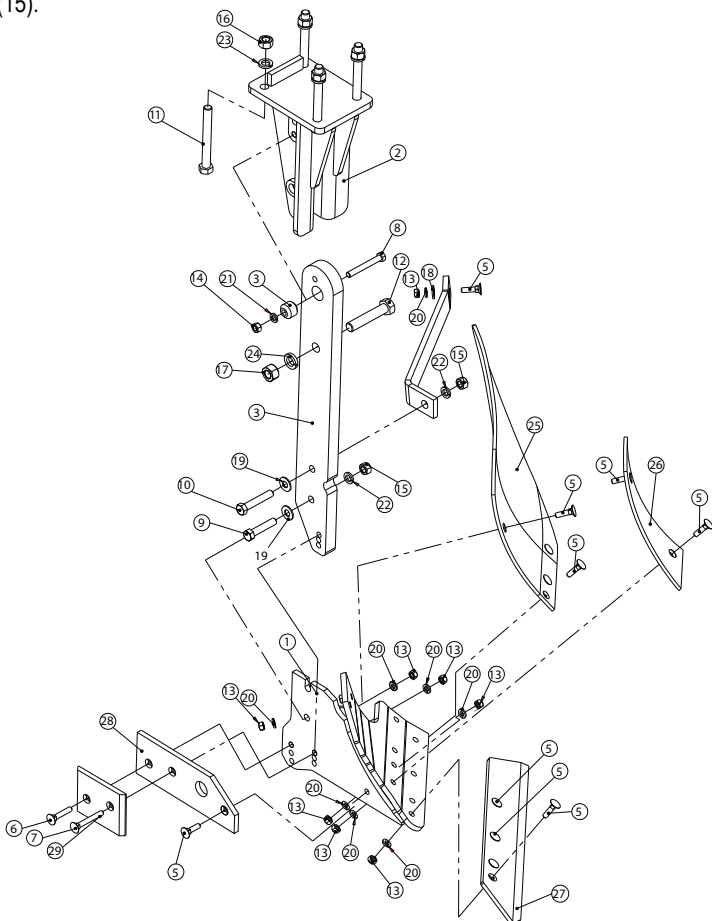
3.- Mount the moldboard (25) to the moldboard carrier (1) and fix it with the screws (5), pressure washers (20) and nuts (13).

4.- Mount the shank in the mold carrier and secure it with the screw (9), flat washer (19), pressure washer (22) and nut (15).

5.- Screw the hearth to the shank with the screw (10), flat washer (19), pressure washer (22) and nut (15) and then to the moldboard (25) with the screw (5, pressure washer (13)), flat washer (18) and nut (13).

6.- Mount the heels (28 and 29) to the mouldboard carrier (1) by means of the screws (5, 6 and 7), pressure washers (20) and nuts (13).

7.- Assemble the shank carrier with the rudder using the screws (12 and 8), pressure washers (21 and 24), nuts (14 and 17) and the bushing (3).



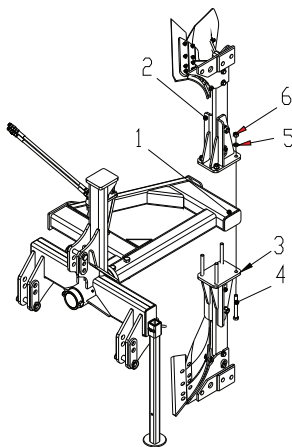
ASSEMBLY

1.- Place the moldboards (2 and 3) in the position indicated in the figure for the left moldboard and the right moldboard.

2.- Attach both shanks to the crossbar of the chassis (1) and fix them by means of the screws (4), pressure washers (5) and nuts (6)

Note: the assembly form mentioned corresponds to the model AVB-200H, however, it is the same for the models
AVB-300H/400H.

SHANK CARRIER, SHANK, MOLDBOARD, FRAME AND HITCH



DEPTH CONTROL WHEEL

1.- Mount the arm (3) to the fixing body (1) by means of the pin (4). Screw the pin to the fixing body with the screw (18), pressure washer (16) and nut (17).

2.- Mount the stops (2) to the fixing body (1) by means of the bolts (6) and secure them with the keys (9).

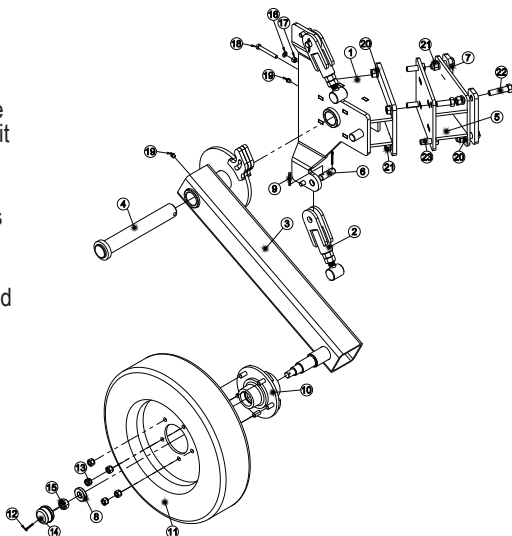
3.- Mount the hub (10) to the arm spindle (3), place the increase (8), then the lock nut (15) and secure it with the key (12).

4.- Mount the wheel (11) to the hub (10) by means of the nuts (13).

5.- Place the grease fittings (19) on the arm (3) and fixing body (1).

6.- Finally, if your plow is the AVB-300H, an increase (5) to the fixing body (1) with the screws (23), pressure washers (20) and nuts (21). Mount the already assembled kit by means of the screws (22), pressure washers (20) and nuts (21) to the frame thereof.

6.1.- In case of belonging to the plow AVB-400H, omit the increase (5) and mount the kit to the plow frame by means of the screws (22), pressure washers (20) and nuts (21).



LIST OF PARTS

MOLDBOARD PLOUGH

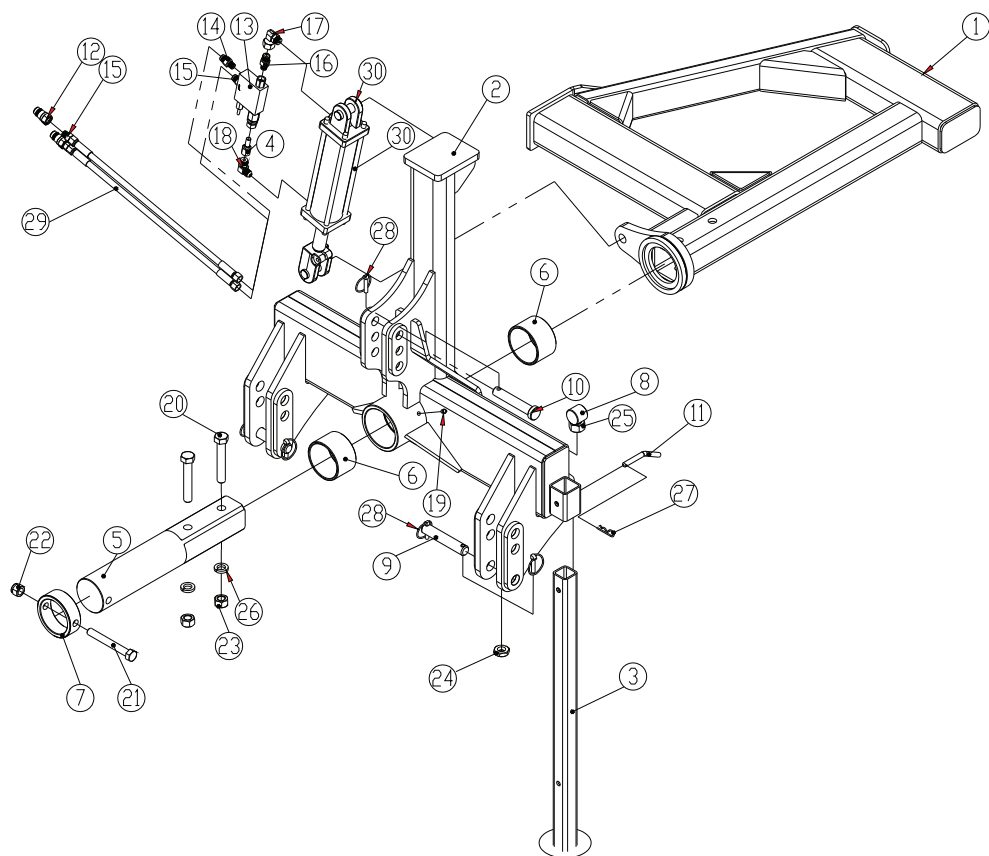
AVB-200H

AVB-300H

AVB-400H

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CATALOG OF PARTS OF THE FRAME AND HITCH AVB-200H

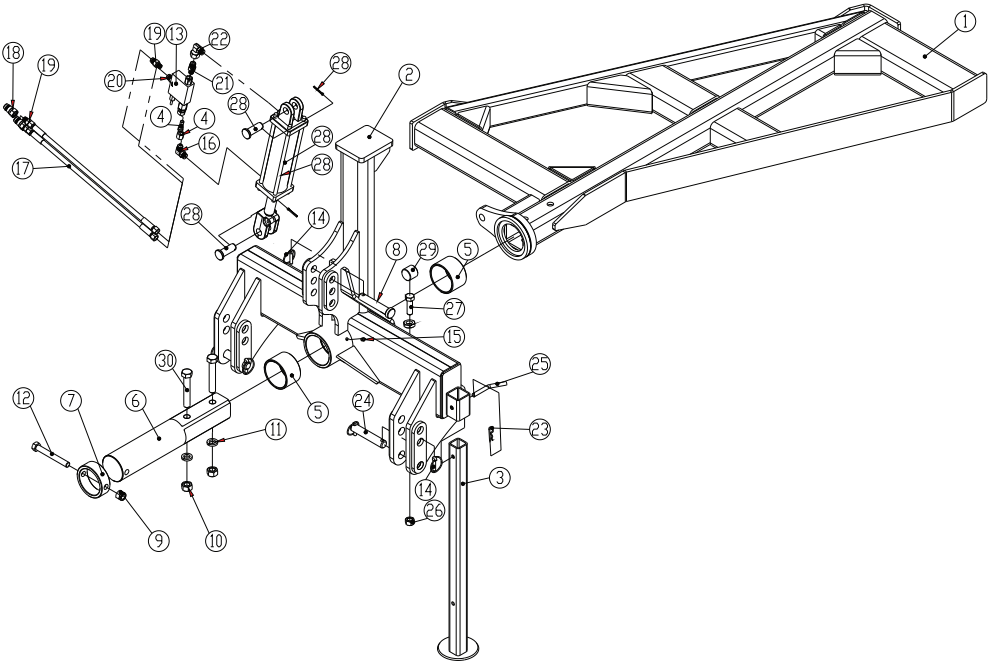


LIST OF PARTS OF THE FRAME AND HITCH AVB-200H

REF.	PART No.	DESCRIPTION	QTY.
1	AV01020100W	FRAME 2 MOLDBOARDS	1
2	AV01030200W	HITCH FRAME	1
3	AV01030600W	STAND	1
4	AV01030700A	CYLINDER TUBING	1
5	AV01030001C	KING PIN	1
6	AV01030003C	WEAR BUSHING	1
7	AV01030009C	KING OIN CAP	2
8	AV01040003C	NYLAMID STOP	1
9	AV01040003C	LOWER HITCH PIN CAT. II	2
10	MC01030001C	THIRD POINT HITCH PIN	2
11	MC01030002C	STAND PIN	1
12	SU05010002C	"RAP.CONNECTOR MACH.QBA-08FP(8010-04)"	1
13	4110-6012-00	"INVERTER VALVE FLOW REGULATOR"	2
14	4110-8030-00	CONNECTION 8MP-8MJ	1
15	4120-1024-35	CONNECTION 8MP-8MJ	2
16	4120-1026-35	CONNECTION 8MP-8MJ	2
17	4120-1014-00	ELBOW 8MB-8MJ 90	1
18	4120-1148-45	ELBOW 8MB-8MJ 90	1
19	4120-1159-50	"STRAIGGREASE 1/8 X 21/32 NPT (H200) (10H 25)"	1
20	*	SCREW. HEX. 7/8 X 5-1/4 - 9 UNC G8	1
21	*	SCREW. HEX. 3/4 X 6 - 10 UNC G5	2
22	*	NUT 3/4 - 10 UNC INC. NYLON	1
23	*	NUT 7/8 - 9 UNC	1
24	*	LOCKNUT HEX. 1 - 8 UNC	2
25	*	NUT HEX. 1" 8 UNC	2
26	*	PRESSURE WASHER 7/8	2
27	*	LOCK "R" 1/8 DAY.	2
28	*	SAFETY LOCK 3/8	1
29	*	HOSE. 8M3K-8FJX-8FJX-1.75	5
30	4430-2566-75	CYLINDER 3 X 8 (BF0385-TATA)	2
	4110-4047-01		1

NOTE: * Standard screws, can be obtained locally.

PARTS CATALOG OF THE FRAME AND HITCH AVB-300H

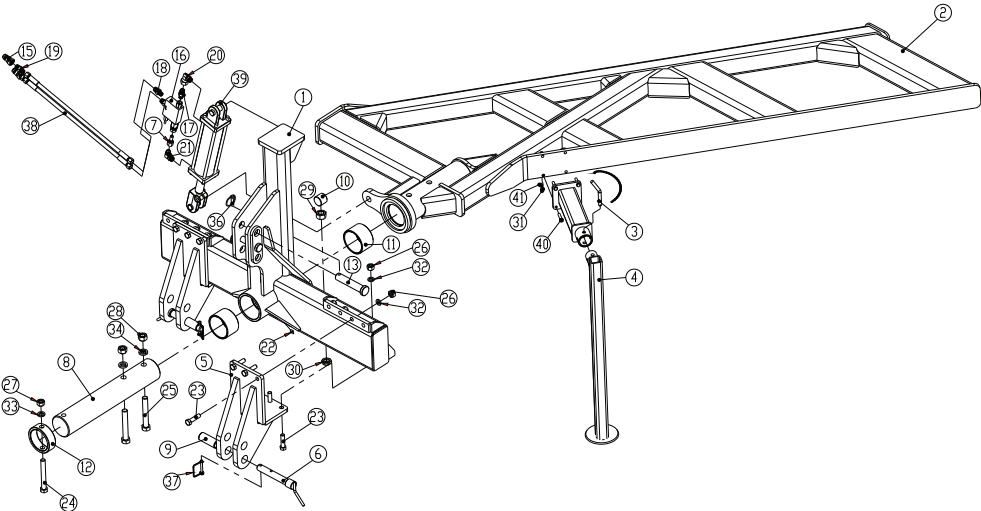


LIST OF PARTS OF THE FRAME AND HITCH AVB-300H

REF.	No. PARTE	DESCRIPTION	QTY.
1	AV01030100W	CHASSIS FOR THREE BODIES	1
2	AV01030200W	HITCH FRAME	1
3	AV01030600W	STAND	1
4	AV01030700A	CYLINDER TUBING	1
5	AV01030003C	WEAR BUSH	2
6	AV01030001C	KING PIN	1
7	AV01030009C	KING PIN CAP	1
8	AV01030009C	THIRD POINT HITCH PIN	1
9	MC01030002C	NUT 3/4 - 10 UNC INC. NYLON	1
10	*	NUT 7/8 - 9 UNC	1
11	*	PRESSURE WASHER 7/8	2
12	*	SCREW. HEX. 3/4 X 6 - 10 UNC G5	2
13	*	"INVERTER VALVE FLOW REGULATOR	1
14	4110-8030-00	"SAFETY LOCK DE 3/8	1
15	*	"STRAIGHT GREASE 1/8 X 21/32 NPT (H200) (10H 25)"	5
16	*	ELBOW 8MB-8MJ 90	1
17	4120-1159-50	HOSE. 8M3K-8FJX-8FJX-1.75	1
18	4430-2566-75	"RAP.CONNECTOR MALE. 08MQBA-08FP(8010-04)"	2
19	4110-6012-00	CONNECTION 8MP-8MJ	2
20	4120-1026-35	CONNECTION 8MP-8MJ	2
21	4120-1024-35	CONNECTION 8MP-8MJ	2
22	4120-1014-00	ELBOW 8MB-8MJ 90	1
23	4120-1148-45	LOCK "R" 1/8 DIA.	1
24	*	LOWER HITCH PIN CAT. II	1
25	MC01030001C	STAND PIN	2
26	SU05010002C	NUT HEX. 3/4 - 10 UNC	1
27	*	SCREW. HEX. 3/4 X 2 1/2 - 10 UNC G5	1
28	*	CYLINDER 3 X 8 (BF-0385 Rev F)	1
29	4110-4047-01	SCREW. HEX. 7/8 X 5-1/4 - 9 UNC G8	1
30	*	NYLAMID STOP	2
	AV01040003C		2

NOTE: * Standard screws, can be obtained locally.

CATALOG OF PARTS OF THE FRAME AND HITCH
AVB-400H

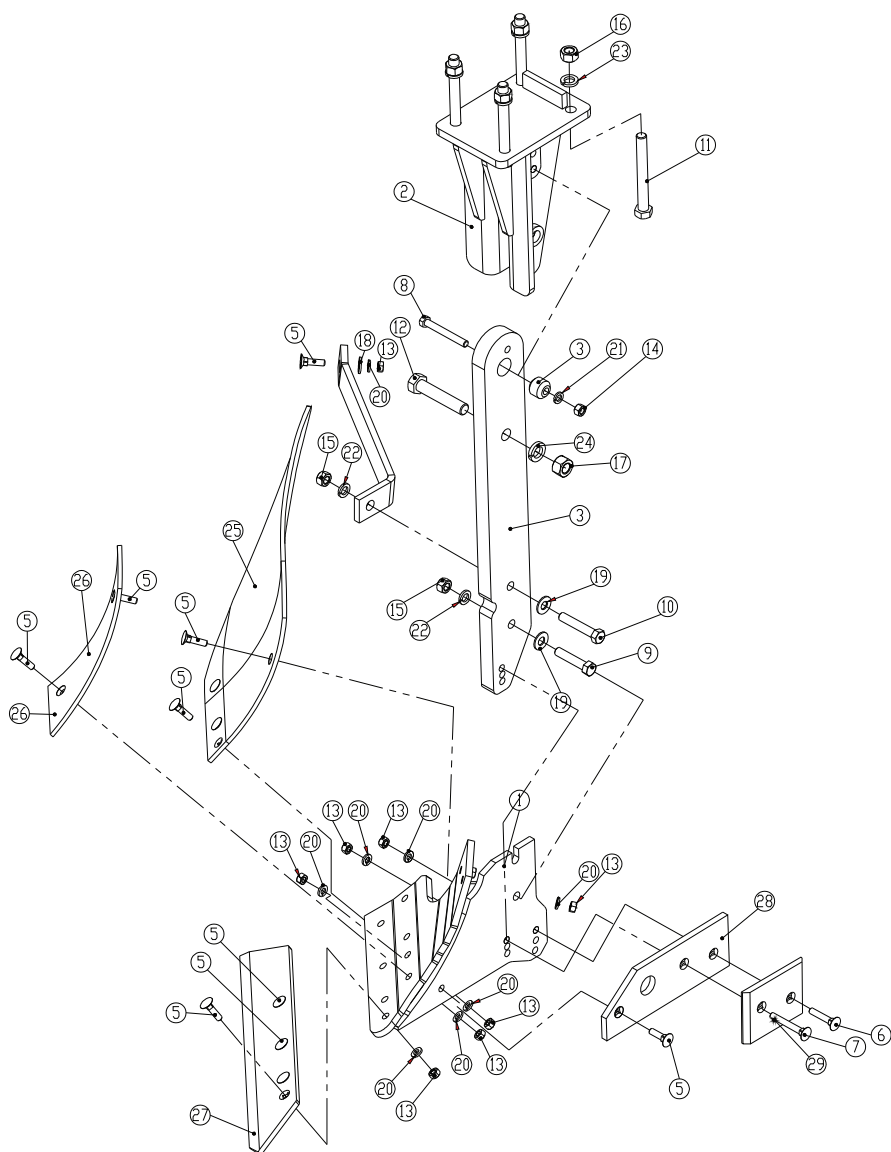


LIST OF PARTS OF THE FRAME AND HITCH AVB-400H

REF.	PART No.	DESCRIPTION	QTY.
1	AV01040100W	HITCH	1
2	AV01040200W	BASTIDOR	1
3	AV01040300W	STAND ARM	1
4	AV01040400W	STAND	1
5	AV01040500W	HITCH EARS	2
6	AV01040600W	HITCH PIN AV.	2
7	AV01030700A	CYLINDER TUBING	1
8	AV01040001C	KING PIN	1
9	AV01040002C	PIN BUSHING	1
10	AV01040003C	NYLAMID STOP	2
11	AV01030003C	WEAR BUSHING	2
12	AV01030009C	KING PIN CAP	2
13	AV01030009C	THIRD POINT PIN	1
14	MC01130001C	THIRD POINT PIN	1
15	MC01030002C	RAP.CONNECTOR MACH. 08MQBA-08FP(8010-04)"	1
16	4110-6012-00	"INVERTER VALVE FLOW REGULATOR"	2
17	4110-8030-00	CONNECTION 8MP-8MJ	1
18	4120-1014-00	CONNECTION 8MP-8MJ	1
19	4120-1024-35	CONNECTION 8MP-8MJ	2
20	4120-1026-35	ELBOW 8MB-8MJ 90	2
21	4120-1148-45	ELBOW 8MB-8MJ 90	1
22	4120-1159-50	"GRASERA RECTA 1/8 X 2 1/32 NPT (H200) (10H 25)"	1
23	*	SCREW. HEX. 5/8 X 2 1/2 - 11 UNC G5	1
24	*	SCREW. HEX. 3/4 X 6 - 10 UNC G5	12
25	*	SCREW. HEX. 7/8 X 6 - 9 UNC G8	1
26	*	NUT PES. 5/8 - 11 UNC	2
27	*	NUT HEX. 3/4 - 10 UNC	12
28	*	NUT 7/8 - 9 UNC	1
29	*	NUT HEX. 1" 8 UNC	2
30	*	LOCKNUT HEX. 1 - 8 UNC	2
31	*	PRESSURE WASHER 3/8"	2
32	*	PRESSURE WASHER 5/8	4
33	*	PRESSURE WASHER 3/4	12
34	*	PRESSURE WASHER 7/8	1
35	*	LOCK "R" 1/8 DIA.	2
36	*	SAFETY LOCK DE 3/8	1
37	*	PIN SNAPPER 5/16 X 2 3/4 (6510020)	2
38	4430-2566-75	HOSE. 8M3K-8FJX-8FJX-1.75	2
39	4110-4047-01	CYLINDER 3 X 8 (BF0385-TATA)	2
40	*	SCREW. HEX. 3/8 X 1 3/4 - 16 UNC G5	1
41	*	NUT HEX 3/8-16 UNC	4
			4

NOTE: * Standard screws, can be obtained locally.

PARTS CATALOG OF SHANK AND RIGHT MOLDBOARD

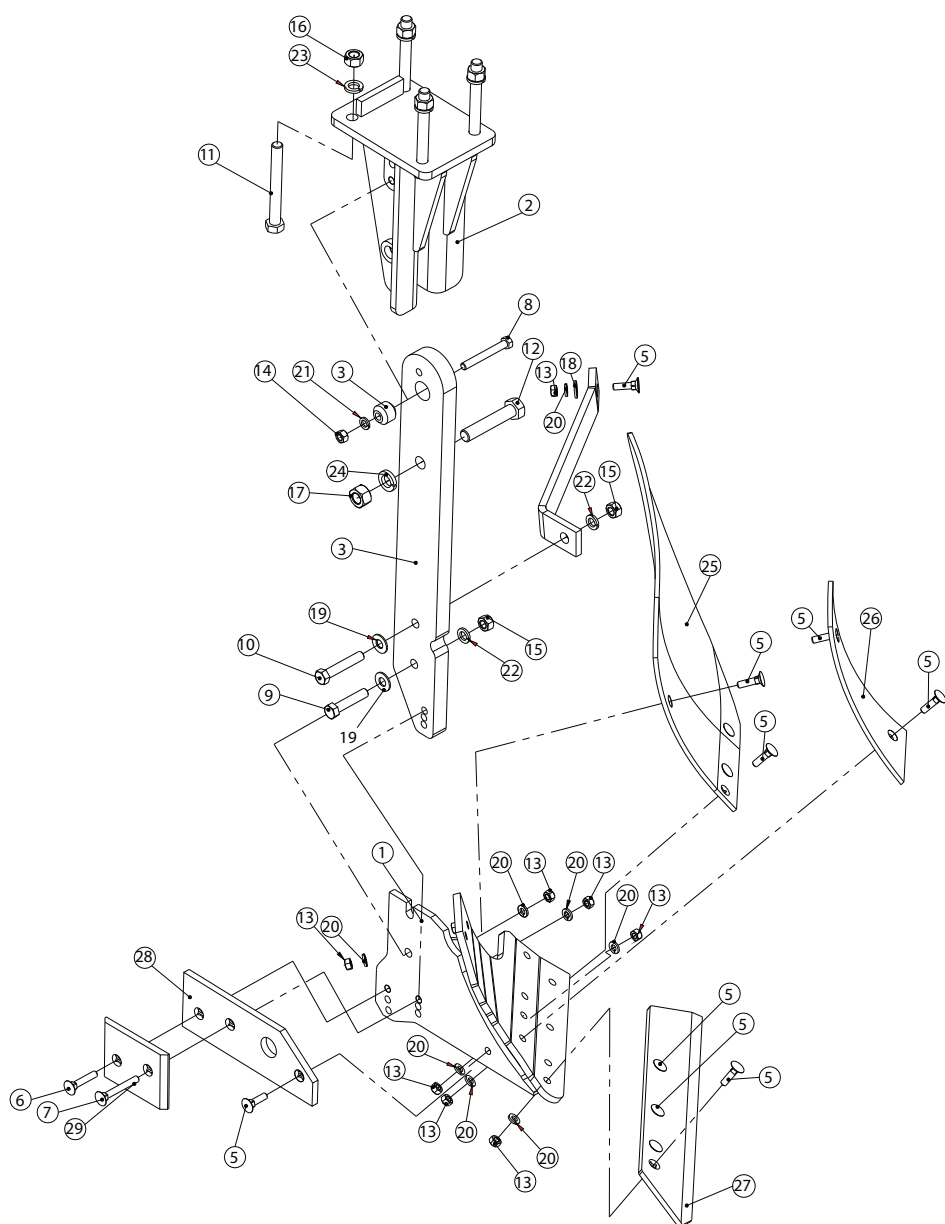


SHANK AND RIGHT MOLDBOARD PARTS LIST

REF.	PART No.	DESCRIPTION	QTY.
1	AV01030400W	ASSE. MOLDBOARD CARRIER.	1
2	AV01030800W	SHANK CARRIER	1
3	AV01030900W	SHANK ASSEMBLY	1
4	AV01030008C	RIGHT MOLD REINFORCEMENT	1
5	*	SCREW. PLW 7/16 X 1-3/4 - 14 UNC G5	12
6	*	SCREW. PLW7/16 X 2 1/2 - 14 UNC G5	1
7	*	SCREW. PLW 7/16 X 3 1/2 - 14 UNC G5	1
8	*	SCREW HEX 1/2 X 4-13UNC G5	1
9	*	SCREW. HEX. 5/8 X 3 - 11 UNC G5	1
10	*	SCREW HEX. 5/8 X 3 1/2 - 11 UNC G5	1
11	*	SCREW HEX. 3/4 x 6-1/2 - 10 UNC G5	4
12	*	SCREW HEX. 7/8 X 4 1/2 - 9 UNC G8	1
13	*	NUT 7/16 - 14 UNC	14
14	*	NUT 1/2 - 13 UNC	1
15	*	NUT HEX. 5/8 - 11 UNC	2
16	*	NUT HEX. 3/4 - 10 UNC	4
17	*	NUT 7/8 - 9 UNC	1
18	*	FLAT WASHER 7/16	1
19	*	FLAT WASHER 5/8"	2
20	*	PRESSURE WASHER 7/16"	14
21	*	PRESSURE WASHER 1/2"	1
22	*	PRESSURE WASHER 5/8	2
23	*	PRESSURE WASHER 3/4	4
24	*	PRESSURE WASHER 7/8	1
25	4370-3532-00	RIGHT MOLDBOARD	1
26	4370-3534-00	GRID 12.5 X 6 RIGHT	1
27	4370-3536-00	BLADE 25.25 RIGHT	1
28	4370-3538-00	HEEL 12.625 RIGHT	1
29	4370-3542-00	RIGHT HEEL 6.125	1

NOTE: * Standard screws, can be obtained locally.

PARTS CATALOG OF SHANK AND LEFT MOLDBOARD






SHANK AND LEFT MOLDBOARD PARTS LIST

REF.	PART No.	DESCRIPTION	QTY.
1	AV01030500W	ASSE. MOLDBOARD CARRIER.	1
2	AV01030800W	SHANK CARRIER	1
3	AV01030900W	SHANK ASSEMBLY	1
4	AV01030013C	LEFT MOLD REINFORCEMENT	1
5	*	SCREW. PLOW 7/16 X 1-3/4 - 14 UNC G5	12
6	*	SCREW PLOW 7/16 X 2 1/2 - 14 UNC G5	1
7	*	SCREW PLOW 7/16 X 3 1/2 - 14 UNC G5	1
8	*	SCREW HEX 1/2 X 4-13UNC G5	1
9	*	SCREW HEX. 5/8 X 3 - 11 UNC G5	1
10	*	SCREW HEX. 5/8 X 3 1/2 - 11 UNC G5	1
11	*	SCREW HEX. 3/4 x 6-1/2 - 10 UNC G5	4
12	*	SCREW HEX. 7/8 X 4 1/2 - 9 UNC G8	1
13	*	NUT 7/16 - 14 UNC	14
14	*	NUT 1/2 - 13 UNC	1
15	*	NUT HEX. 5/8 - 11 UNC	2
16	*	NUT HEX. 3/4 - 10 UNC	4
17	*	NUT 7/8 - 9 UNC	1
18	*	FLAT WASHER 7/16	1
19	*	FLAT WASHER 5/8"	2
20	*	PRESSURE WASHER 7/16"	14
21	*	PRESSURE WASHER 1/2"	1
22	*	PRESSURE WASHER 5/8	2
23	*	PRESSURE WASHER 3/4	4
24	*	PRESSURE WASHER 7/8	1
25	4370-3533-00	UNIVERSAL MOLDBOARD 28.5 X 12.5	1
26	4370-3535-00	GRID 12.5 X 6 LEFT.	1
27	4370-3537-00	BLADE 25.25 LEFT	1
28	4370-3539-00	HEEL 12.625 LEFT	1
29	4370-3543-00	LEFT HEEL 6.125	1

NOTE: * Standard screws, can be obtained locally.

SCREW TORQUE SPECIFICATIONS

TIGHTENING VALUES OF NON-METRIC SCREWS (IN.)

Tamaño del perno	Grado 2		Grado 5		Grado 8	
	N·m	LB·FT	N·m	LB·FT	N·m	LB·FT
5/16-18	15	11	24	17	33	25
3/8-16	27	20	42	31	59	44
7/16-14	43	32	67	49	95	70
1/2-13	66	49	105	76	145	105
9/16-12	95	70	150	110	210	155
5/8-11	130	97	205	150	285	210
3/4-10	235	170	360	265	510	375
7/8-9	225	165	585	430	820	605
1-8	340	250	875	645	1230	910
Identificación de pernos estándar <div>  <div> GRADE 2 UNMARKED </div> </div> <div>  <div> GRADE 5 3 MARKS </div> </div> <div>  <div> GRADE 8 6 MARKS </div> </div>						

GENERAL INFORMATION

Torque values of the screws

All screws of this equipment are grade 5, unless a higher grade is specified. Always replace the screws with others of the same grade. The grade 5 screws have three radial marks on the head.

Tighten the screws according to the table, unless the manual indicates something different. Do not over tighten the screws, as this could cause a failure during the operation.

Note: DO NOT USE these values if a different tightening value is specified for a specific application. The given values are for general use. Periodically check the tightening of the screws.

SCREW TORQUE SPECIFICATIONS

TIGHTENING VALUES OF METRIC SCREWS

Tamaño de pernos	Clase 5.8		Clase 8.8		Clase 10.9	
	N·m	LB·FT	N·m	LB·FT	N·m	LB·FT
M 5 x 0.8	4	3	6	5	9	7
M 6 x 1	7	5	11	8	15	11
M 8 x 1.25	17	12	26	19	36	27
M 10 x 1.5	33	24	52	39	72	53
M 12 x 1.75	58	42	91	67	125	93
M 14 x 2	92	68	145	105	200	150
M 16 x 2	145	105	225	165	315	230
M 18 x 2.5	195	145	310	230	405	300
M 20 x 2.5	280	205	440	325	610	450
M 24 X 3	480	355	760	560	1050	780

Identify metric bolts by the class number stamped on the head or nut. Higher numbers indicate greater strength.

GENERAL INFORMATION

Torque values of the screws

Always replace screws with others of the same class. The metric screws have the class number marked on the head.

Tighten the screws according to the table, unless the manual indicates something different. Do not over tighten the screws, as this could cause a failure during the operation.

Note: DO NOT USE these values if a different tightening value is specified for a specific application. The given values are for general use. Periodically check the tightening of the screws.

PREVENTION AGAINST THEFT

REGISTER THE PRODUCT IDENTIFICATION NUMBER (N.I.P.)

The Plow Serial Number Plate is located on the front of the frame.

Enter the serial number in the corresponding space in the box that appears in the warranty section.

Mark the machine with its own unique numbering system.

Record the Product Identification Number (NIP) of the machine, as well as the main components. Include the numbers (PIN) on all insurance, financing and guarantee documents.

Your distributor will need this information to give you a fast and efficient service when ordering spare parts.

IMPORTANT: Whenever it is necessary to order spare parts for your Plow, it is important that you provide in full the 10 characters of the Serial Number. It is imperative to comply with this requirement.



TECNOMEC AGRICOLA, S.A. DE C.V.
Carr. a Paso Blanco Km. 2 # 400
Col. Vista Hermosa C.P. 20900
Jesús Ma. Aguascalientes, MEX
Tel. (52) (449) 922 47 66 / 92 BISON
Fax (52) (449) 922 47 67

No. SERIE

MODELO

WARRANTY

Please enter information below and save for future reference.

AUTHORIZED DEALER:	_____	SALESMAN NAME:	_____
MACHINE MODEL:	_____	SERIAL NUMBER:	_____
END CUSTOMER NAME:	_____	PURCHASE DATE:	____ / ____ / ____
	_____	TEL:	(____) ____ - ____
ADDRESS:	_____	EMAIL:	_____
	_____		_____

A. GENERAL PROVISIONS - The warranties described below are provided by Tecnomec Agrícola, S.A. de C.V. (TECNOMECE) to the original purchasers of new agricultural products from TECNOMECE or authorized dealers for a period of one (1) year under **agricultural use**. Replacement or repair parts installed in the equipment covered by this limited warranty are warranted for ninety (90) days from the date of purchase of such part or the expiration of the applicable new equipment warranty period, whichever occurs later. Under these warranties, TECNOMECE will repair or replace, at its discretion, any covered part which is found to be defective in material or workmanship during the applicable warranty term. Warranty service must be performed by an authorized BISON dealer, which will use only new or remanufactured parts or components furnished by TECNOMECE.

Warranty service will be performed without charge to the purchaser for parts or labor. The purchaser will be responsible, however, for any service call and/or transportation of product to and from the dealer's or service center's place of business, for any premium charged for overtime labor requested by the purchaser, and for any service and/or maintenance not directly related to any defect covered under the warranties below. At TECNOMECE's request, dealer will be responsible for returning the parts to TECNOMECE for evaluation.

B. WHAT IS WARRANTED - All parts of any new TECNOMECE product. TECNOMECE makes no warranty, express or implied, with respect to engines, batteries, tires or other parts or accessories not manufactured by TECNOMECE. Warranties for these items, if any, are provided separately by their respective manufacturers.

Each warranty term begins on the date of product delivery to the purchaser.

C. WHAT IS NOT WARRANTED TECNOMECE IS NOT RESPONSIBLE FOR THE FOLLOWING : (1) **Used Products**; (2) **Any product** that has been altered, modified, or used in connection with attachments in ways not approved by TECNOMECE; (3) **Depreciation or damage** caused by normal wear, lack of reasonable and proper maintenance, failure to follow the product's OPERATOR MANUAL instructions, misuse, lack of proper protection during storage, or accident; (4) **Normal maintenance** parts and service, including, but not limited to, oil filters, coolants and conditioners, cutting parts, belts, brake and clutch linings.

Incidental or consequential losses, damages or expenses, arising directly or indirectly from the product, **whether such claim is based upon breach of contract, breach of warranty, negligence, strict liability in tort or any other legal theory. Without limiting the generality of the foregoing**, TECNOMECE specifically disclaims responsibility for any damages relating to (i) lost profits, business, revenues or goodwill; (ii) loss of crops; (iii) loss because of delay in harvesting; (iv) any expense or loss incurred for labor, supplies, substitute machinery or rental; or (v) any other type of damage to property or economic loss.

This Warranty is extended solely to the original purchaser of the product. Should the original purchaser sell or otherwise transfer this product to a third party, this Warranty does not transfer to the third party purchaser in any way. There are no third party beneficiaries of this Warranty.

D. SECURING WARRANTY SERVICE - To secure warranty services, the purchaser must (1) report the product defect to an authorized dealer and request repair within the applicable warranty term, (2) present evidence of the warranty start date, and (3) make the product available to the dealer or service center within 45 days.

E. NO IMPLIED WARRANTY OR OTHER REMEDY - AGRICULTURAL PRODUCTS - Where permitted by law, neither TECNOMECE nor any company affiliated with it makes any warranties, representations, or promises, express or implied as to the quality or performance, or freedom from defect of its agricultural products other than those set forth above, and **NO IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE IS MADE. IN NO EVENT WILL THE DEALER, TECNOMECE OR ANY COMPANY AFFILIATED WITH TECNOMECE BE LIABLE FOR INCIDENTAL OR CONSEQUENTIAL DAMAGES.**

The only remedies the purchaser has in connection with the breach of performance of any warranty on TECNOMECE agricultural products are those set forth above.

F. NO WARRANTY MODIFICATION - No agent, representative, authorized dealer, distributor, service center, serviceperson, salesperson, other than an officer from TECNOMECE is authorized to alter, modify, or enlarge this Warranty.

G. If further information is desired, contact your selling dealer or the nearest branch office of TECNOMECE

H. This Warranty is effective only if the warranty registration is electronically submitted to TECNOMECE by dealer within ten (10) days of retail purchase date.

For warranty services contact your BISON selling dealer.

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**PART NO.
4350-2153-01**



