

PRONOVOST

**OWNER'S
MANUAL**

SILATUBE

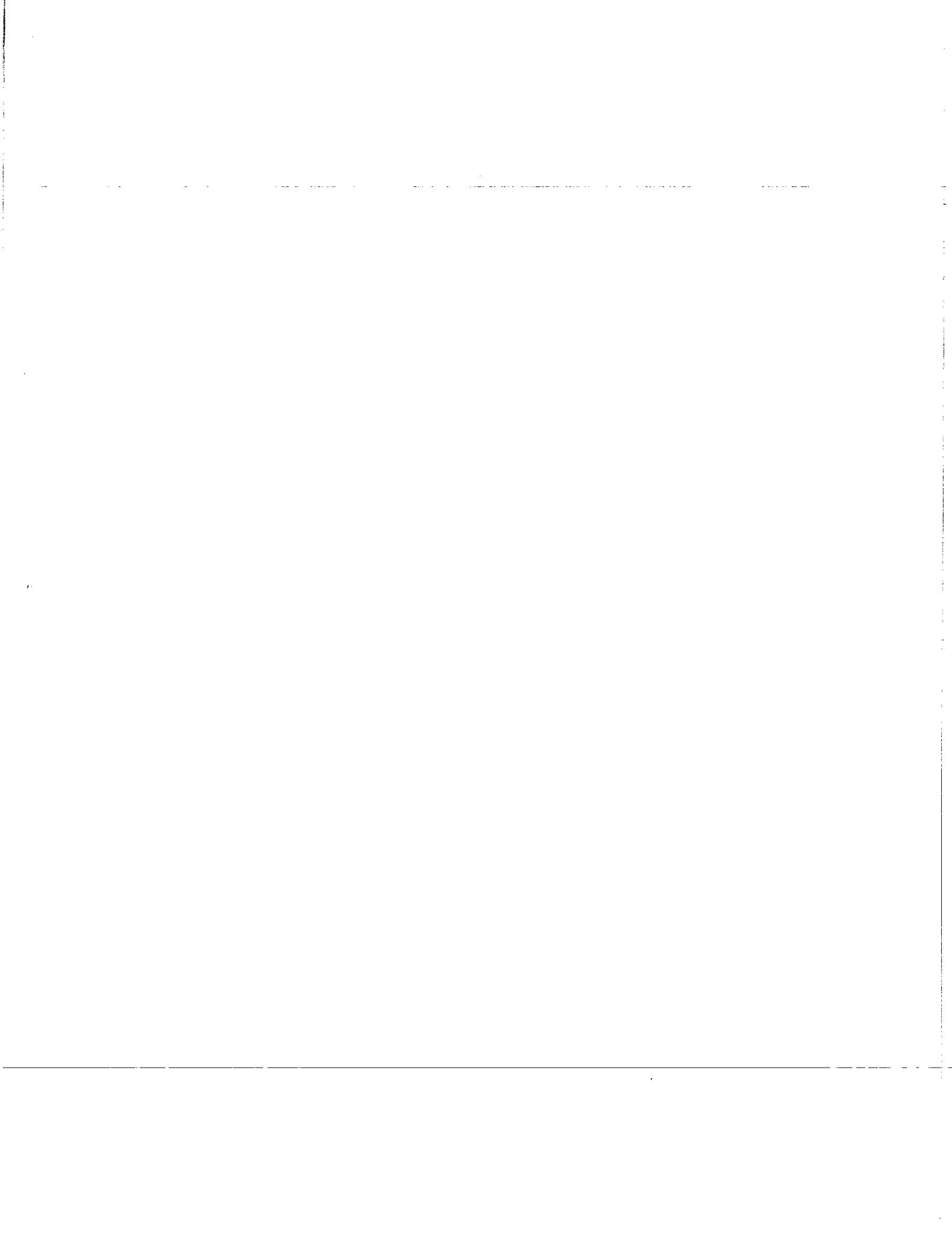
Model P-6400

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INTRODUCTION

1

CONGRATULATIONS!

Thank you for choosing PRONOVOST. We are confident this equipment will meet your requirements in terms of quality, performance and reliability.

This manual was prepared to assist you in the safe operation of your new SilaTube. It contains important information which will help you achieve excellent returns with your tubing-machine for years to come.

Please read this manual completely before operating your SilaTube and keep it for future reference.

Before starting the machine, you or any other person who will be operating the SilaTube must familiarize yourself with the safety recommendations and the operating instructions. Please read carefully and be sure to understand and follow all recommendations and procedures.

In this manual, the right and left sides of the SilaTube are identified while standing at the discharge end of the machine and facing it.

If you require additional information on your SilaTube, please contact your PRONOVOST Dealer.

NOW take a moment to enter the model, serial number and the date of purchase of your SilaTube in the space provided.

When ordering parts from your Dealer, please refer to these numbers for a fast and efficient service. Use PRONOVOST parts for replacement.

The model and serial numbers are on the nameplate shown on Fig. 1.

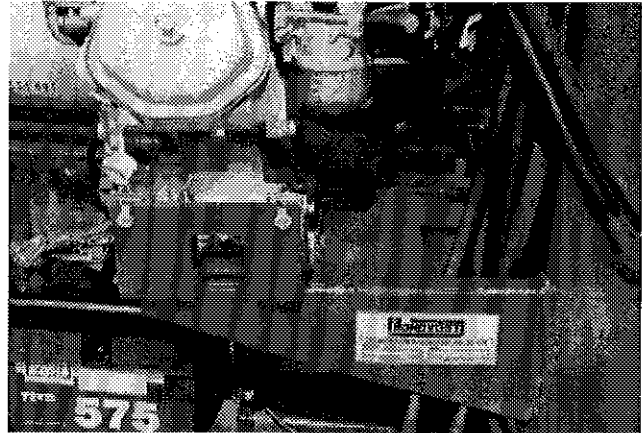


Figure 1

MODEL: _____

SERIAL NO.: _____

DATE OF PURCHASE: _____

SAFETY

GENERAL SAFETY

2

WHEN YOU SEE THIS SYMBOL



ATTENTION!

BE ALERT YOUR SAFETY IS INVOLVED

This symbol «**SAFETY ALERT**» is used in this manual and on the safety decals on the SilaTube. It warns you of the possibility of danger. Carefully read, understand and follow all safety recommendations before operating the SilaTube.

- 1) Careful operation is the best assurance against accidents. Carefully read this manual and the motor manual and follow all recommendations before operating your SilaTube. It is the owner's responsibility to make sure that anyone who will operate the SilaTube will read these manuals before operating the equipment.
- 2) Never let a child operate the SilaTube.
- 3) Do not modify the SilaTube. Any non authorized modification may affect the efficiency and/or safety of the equipment.
- 4) Never operate the SilaTube with defective parts or if damaged in any way. Have it repaired before operating.
- 5) Make sure all fasteners are in place and properly secured or tightened. Refer to torque chart on page 49.

- 6) Avoid wearing loose fitting clothing when working with the SilaTube. These could get entangled in moving parts of the equipment and cause accidents.
- 7) Keep motor clean and exempt of dust and debris.
- 8) Before using the SilaTube, inspect the area where it is to be used and remove any object which could hamper normal operation or damage the plastic tube.
- 9) Hydraulic fluids under pressure can damage your skin. Do not use your hands to locate a leak.
- 10) Plastic bags are impervious to air. Keep them away from children to avoid suffocation.
- 11) When using a tractor equipped with a spear, be extremely careful. Always lower the spear to the ground before leaving your tractor.
- 12) Do not store, spill or use fuel near a flame, a hot engine or stove.

SAFETY IN OPERATION

- 1) Be sure there are no obstructions around the equipment and that no one stands near the SilaTube when in operation.
- 2) Always refuel equipment when outside and away from flames or sparks.
- 3) Never run the engine inside. Do not operate the engine in a confined or non ventilated area. Carbon monoxide is a colorless, odorless and deadly gas.
- 4) Be careful when adjusting equipment with engine running.

SAFETY (cont'd)

- 5) Keep hands, feet, hair and clothing away from moving parts.
- 6) Should you need to step onto the SilaTube for whatever reasons, **ALWAYS** stop the motor since there is **RISK OF SERIOUS INJURY** if not stopped.
- 7) Do not refill fuel tank with engine running. Always let the engine cool off for a couple of minutes before refilling. Always use approved fuel containers.
- 8) Do not operate the engine if fuel is spilled. Move equipment away from the spill and avoid any spark until the complete evaporation of the fuel.
- 9) Do not smoke while refueling.
- 10) Do not operate engine with any accumulation of hay, leaves, dirt or any other combustible material near the exhaust muffler.
- 11) Avoid touching the hot muffler and cooling fins since they could cause burns to your skin.

SAFETY WITH MAINTENANCE

- 1) Perform the SilaTube maintenance according to the recommendations contained in this manual.
- 2) Stop engine and relieve all hydraulic pressures before doing inspection, maintenance or repairs.
- 3) Do not check spark with spark plug or wire removed. Use the appropriate testing equipment.
- 4) Regularly check fuel lines and fittings for leaks. Replace if necessary.

SAFETY IN TRANSPORT

- 1) Be sure to engage the two safety locks (A Figure 2) provided for the rear wheels hydraulic cylinders (B Figure 2).
- 2) Check local regulations for the transport of your SilaTube on the road.
- 3) Be alert when pulling the SilaTube on the road. Do not allow anyone to stand on it while in motion.
- 4) The road speed should be such as to maintain full control over steering and braking.
- 5) Be careful while backing up.

SAFETY IN STORAGE

- 1) Let engine cool and drain fuel from tank.
- 2) Do not let children play in the area where the SilaTube is stored.
- 3) Do not leave a Tube installed on the SilaTube.
- 4) Do not let the SilaTube stand on the tires. Lower it to the ground or on wooden blocks. **THIS WILL AVOID ANY ACCIDENTAL CRUSHING OF ANIMALS OR ANYONE WHO COULD CRAWL UNDER THE EQUIPMENT.**

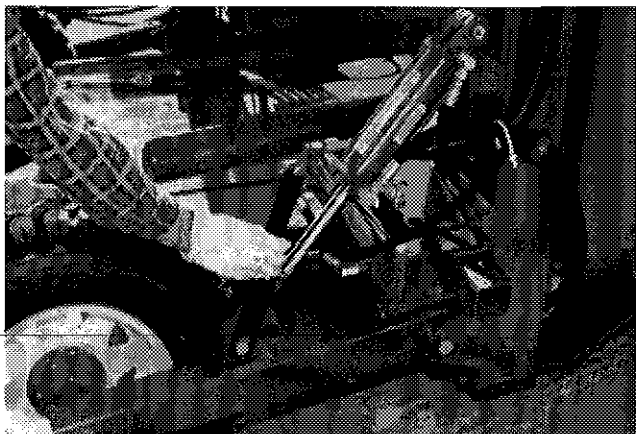


Figure 2

2

DECALS

SAFETY DECALS

The safety decals are affixed wherever special safety precautions are indicated. Locate them on the machine and read them carefully. If a decal is damaged, lost or illegible, install a new one. Each decal is identified with a letter and part number. The following photos indicate where each one must be installed.

3

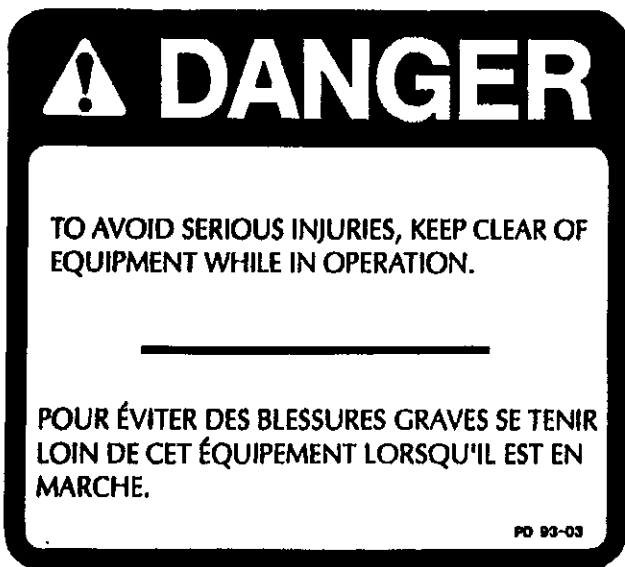


Figure 3
Decal A

Part no.: A101

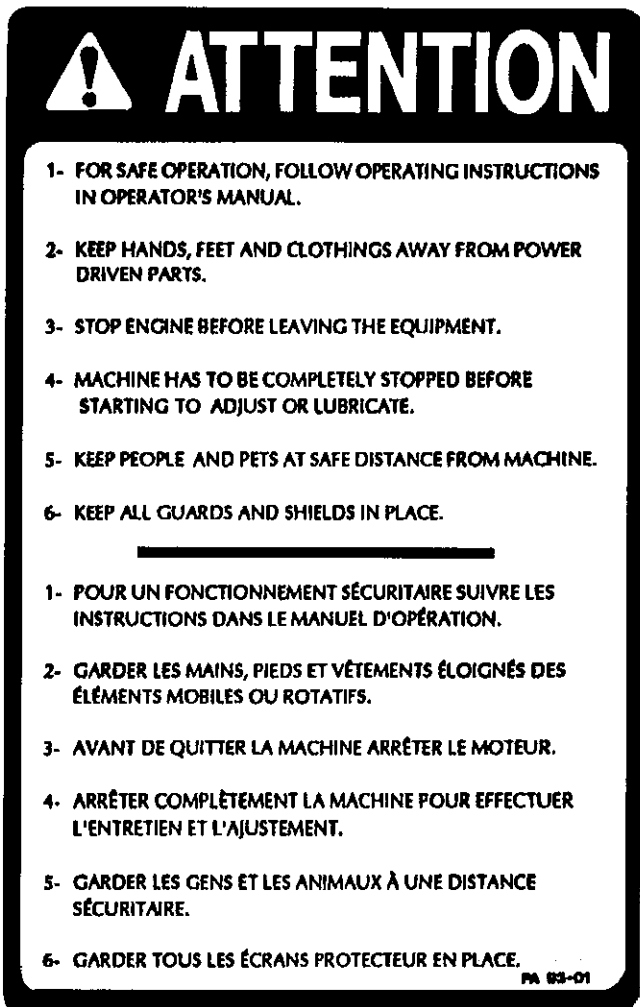


Figure 5
Decal B

Part no.: A102



Figure 4



Figure 6

DECALS (cont'd)



Figure 7
Decal C

Part no.: A103



Figure 8

MAINTENANCE DECALS

The maintenance decals indicate the points requiring lubrication. Refer to the maintenance section for more details.



Figure 9

Part no.: A104

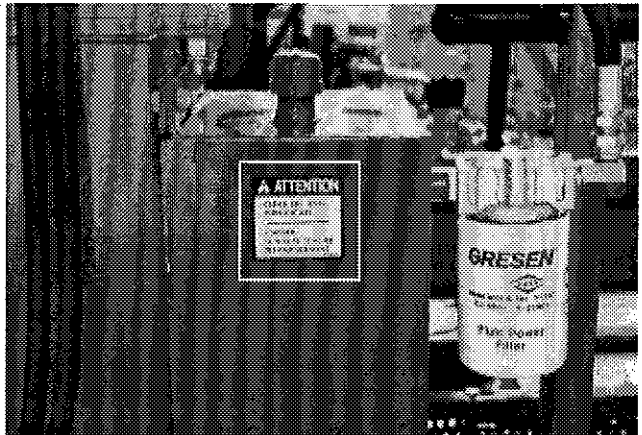


Figure 10



Figure 11

Part no.: A 106

OPERATION



4

Figure 12



Figure 13



Figure 14

BASIC START-UP PROCEDURES

- 1) The SilaTube engine is mounted on a sliding base so it can be easily placed in transport position in order not to exceed the legal width on the road. Do not forget to re-position the engine outward before starting (Fig. 12).
- 2) Verify for adequate tightness of all fastening devices. Refer to torque chart on page 49.
- 3) Lubricate all points and guide mechanisms requiring grease, with a high quality lithium base grease containing molybdenum disulfide (MoS_2) such as «Esso Unirex EP1 Moly», «DARINA XL-Multi Season Moly, Grade #1» from Shell or equivalent.
- 4) Check oil level in hydraulic reservoir. Use good quality tractor transmission and hydraulic system oil such as «Trans Hydraulic Duratran» from Petro Canada, «DONAX TD» from Shell or equivalent.
- 5) Check tire pressure and adjust according to recommendation indicated on the tires.
- 6) Check engine oil level.
- 7) Check the operation of all hydraulic cylinders.
- 8) Check the operation of the bale pusher mechanism. It must operate freely and return to its starting position automatically.
- 9) If your SilaTube is equipped with the hydraulic U-shaped bales guide, check if it operates well. If needed, readjust the two halves of the bale guide in order to maintain them parallel. It can be done by taking off the central part (Fig. 13) and by turning the adjustments (Fig. 14).

OPERATION (cont'd)

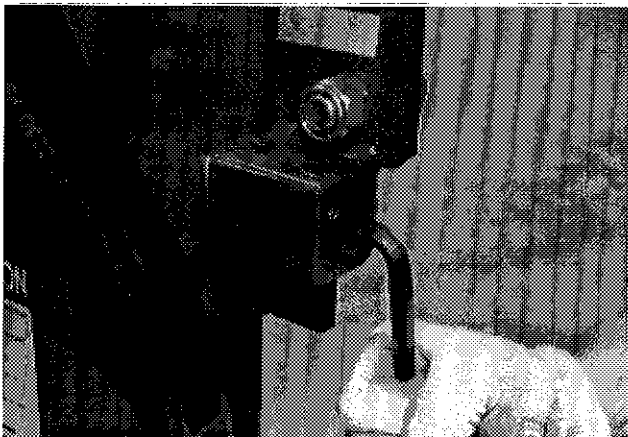


Figure 15

10) There is one adjustment for each lateral stretcher. It helps to reduce the friction due to torsion when stretching the tube. It is important not to apply an excessive tension on these adjustments (Fig. 15).

11) Your SilaTube has hydraulic manual controls (1 & 2 Fig. 16), electrohydraulic controls for some functions (3 Fig. 16), and a remote control (Fig. 17) from which you can control the main functions. The **grey button makes the pusher move forward**. The **red button stops the pusher and returns it to its starting position**. The **yellow button makes the SilaTube turn to the left side** and the **green button to the right side**.

4

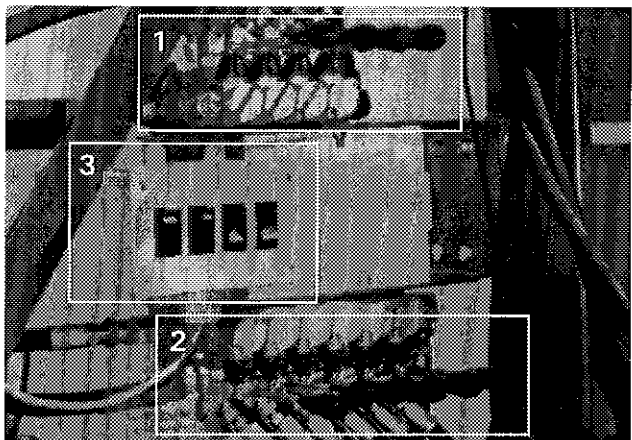


Figure 16

12) The control box on the SilaTube (Fig. 18) controls the following functions. From left to right, the **first button turns on the hydraulic system**. The **second button selects the pusher operation mode manual or automatic** (when the pusher moves forward and returns to its starting position automatically). The **third button moves the pusher forward or backward**. The **fourth button turns the SilaTube to the left or to the right**.

13) There are two limit switches (Fig. 19), they are used to adjust the length of travel of the pusher in automatic mode.



Figure 17

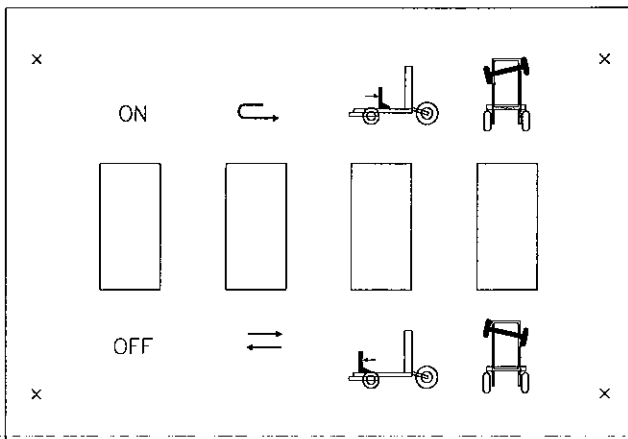


Figure 18

OPERATION (cont'd)

4



Figure 19



Figure 20



Figure 21

- 14) Check the surface of the stretcher arms for smoothness. Any mark or protrusion could cause the tube to tear.
- 15) A motorized moving kit is available as an option. Place the lever downward and put the clevis in place to disengage the traction (Fig. 20).
- 16) Place the lever upward (Fig. 21) to engage the traction and operate the corresponding control valve to move the SilaTube forward or backward. **WARNING: put the lever back into the disengaged position after each displacement because there is a risk of serious damage if you move the SilaTube with an other vehicule or when it moves forward when operating.**

GROUND PREPARATION

- 1) Choose a dry and well drained area.
- 2) Level and clean up site where the tubes will be used.
- 3) If possible, provide a sand bed of 2" to 3" (5-8 cm.) thick. This will help reduce damage from rodents.



Figure 22

OPERATION FOR SQUARE BALES (cont'd)

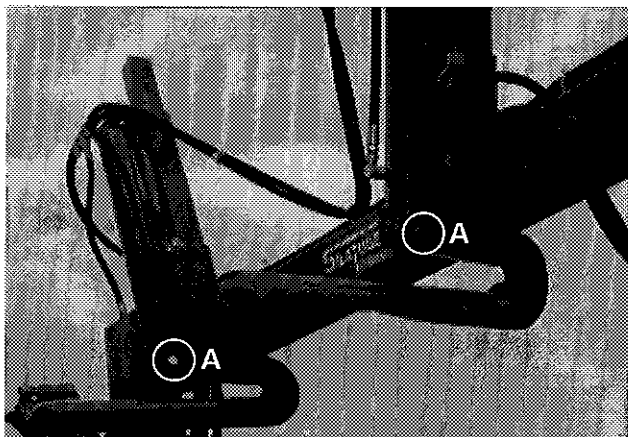


Figure 23

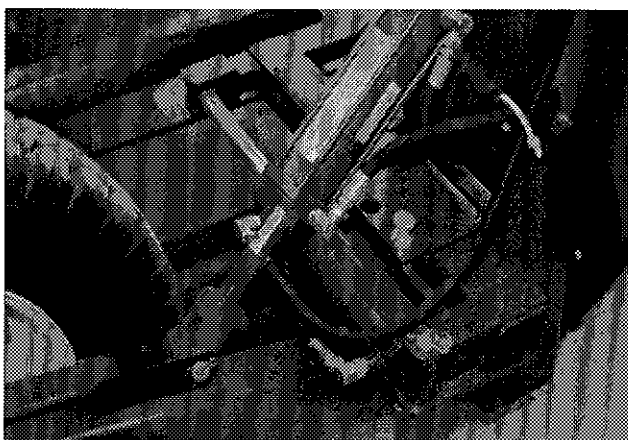


Figure 24

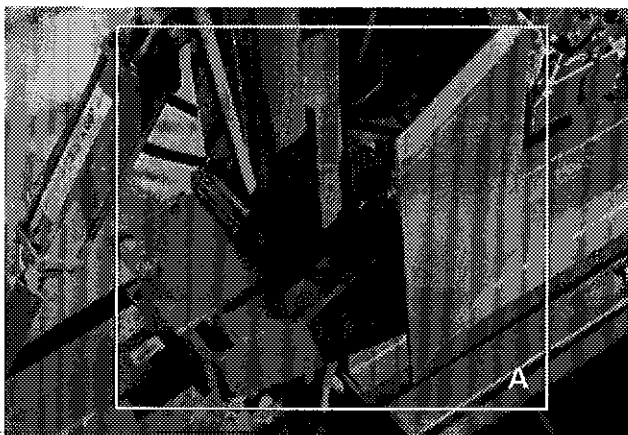


Figure 25

SQUARE BALE TUBING

ADJUSTEMENT OF SILATUBE

- 1) Your SilaTube is designed to bale-tubing square silage bales. The U-shaped bale guide is adjustable from 36" to 60" (91 cm to 152 cm) width and the free height from 37" to 72" (94 cm to 183 cm).
- 2) We recommend to adjust the bales length between 60" and 63" (152 cm to 183 cm). **NEVER exceed 65" (165 cm) long** because it could cause tears to the tube. The bale will be placed crosswise to the machine. One or more stacked bales can be placed on the SilaTube but they must never **exceed 72" (183 cm) high**.
- 3) If the SilaTube is equipped with the round bale option, the upper stretcher arms (Fig. 23) must be removed to obtain the maximum free height. Take off the two clevis (A Fig. 23) and remove the stretchers. The bottom stretchers must be adjusted to te outside hole. (Fig. 24)
- 4) If not equipped with round bale option, the two guides (A Fig. 25) must be installed as shown to protect the plastic tube.
- 5) The U-shaped bale guide must be adjusted to its largest dimension (Fig. 26).

4



Figure 26

OPERATION FOR SQUARE BALES (cont'd)

4



Fig. 27

6) The two lateral stretchers must be adjusted to the central position as shown (Fig. 27). However it is possible to adjust them at the outside position if the bales are excessively big.

7) Use turnbuckles provided (Fig. 28) to adjust lower guide according to the width of the bales (Fig. 29). It is important that the bales are centered on the machine.

8) Use turnbuckles provided (Fig. 30) to adjust upper guide to the same dimension.

9) Locate the rear end of the SilaTube approximately 5' (152 cm) away from the point where you want to position the end of the tube. This will compensate if there is some slippage of the first couple of bales until there is enough ground friction to push the SilaTube forward.

10) The SilaTube can be operated with the tongue assembly on. If there is a risk of interference with the front of the tractor or with uneven ground, it is recommended to remove it (Fig. 31).

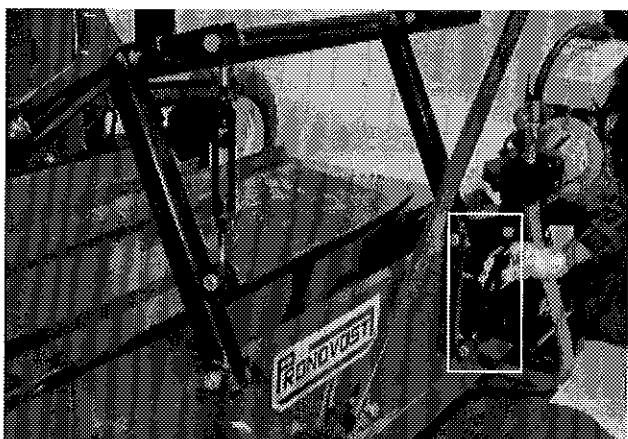


Figure 28



Figure 29

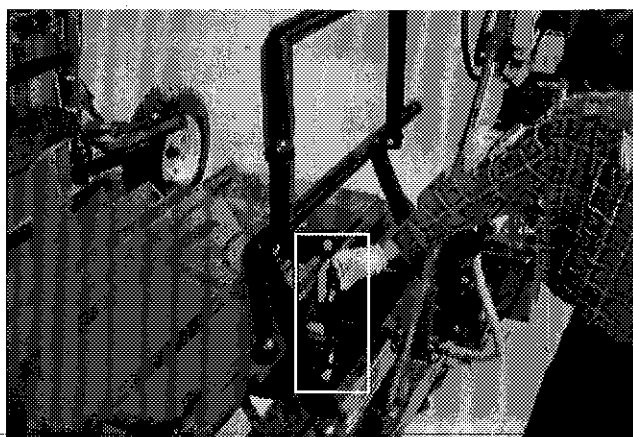


Figure 30

OPERATION FOR SQUARE BALES (cont'd)



Fig. 31



Figure 32

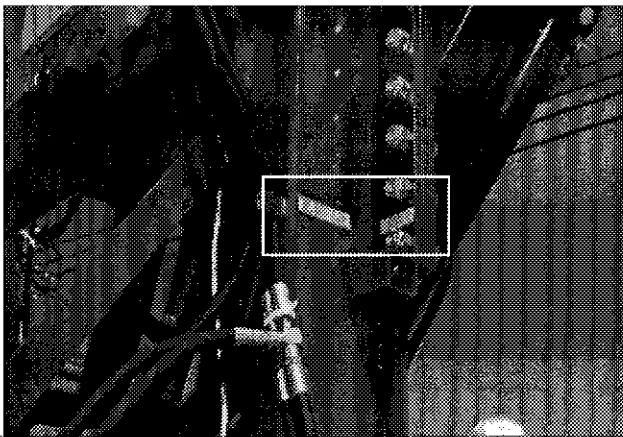


Figure 33

- 11) For maximum operating speed, you may set the engine to full throttle, although it is preferable to run it a speed closer to your rate of bale supply to machine. This will result in a more economical operation.

OPERATION

- 1) Start engine.
- 2) Pull out the tube support plate (Fig. 32).
- 3) Adjust the height of the two lateral stretchers to the upper yellow mark (Fig. 33).
- 4) Remove the tube from its box, lay it flat on the ground and roll the two ends towards center. Place the tube at the center of the support plate and unroll each side. Place it so that the tube name is facing outside when it unfolds (Fig. 34).

4



Figure 34

OPERATION FOR SQUARE BALES (cont'd)

4



Figure 35

- 5) Close the stretcher arms to the most inward position as shown (Fig. 35 & Fig. 36) and install tube on the stretcher arms.
- 6) Slide it carefully to the **bottom** of the stretcher arms and under the U-shaped bale guide (Fig. 37).
- 7) Be careful to remove all wrinkles, since they could cause some tearing of the tube (Fig. 38).
- 8) Open the two lateral stretchers in order to apply a **slight amount of tension** to the tube (Fig. 39).

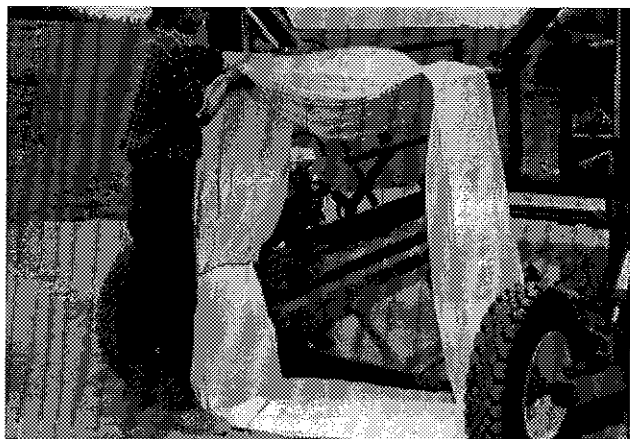


Figure 36



Figure 38

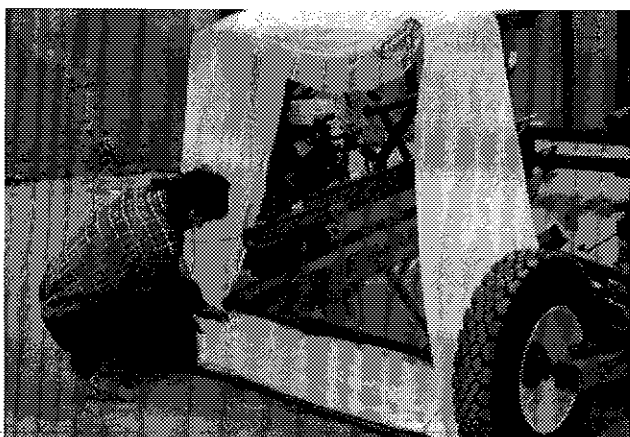


Figure 37

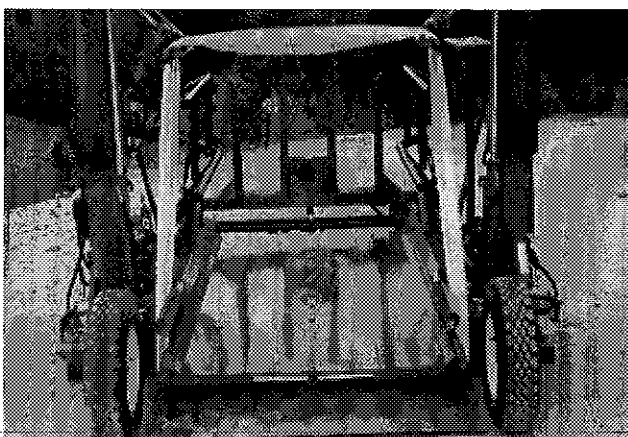


Figure 39

OPERATION FOR SQUARE BALES (cont'd)

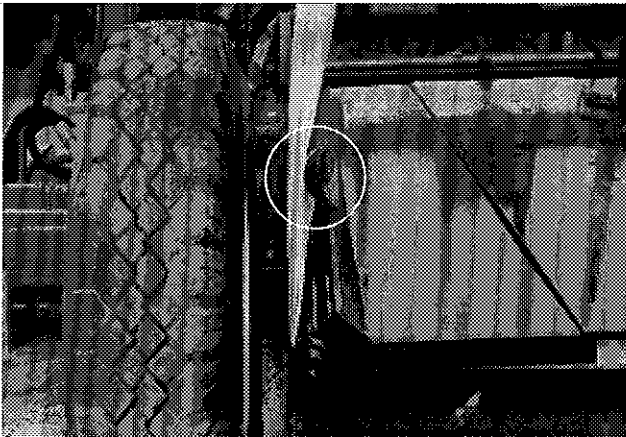


Figure 40



Figure 41



Figure 42

9) If the round bales option is installed on the SilaTube, it's important to place the two bottom stretchers to avoid pressure on the plastic tube (Fig. 40). The pressure on the plastic tube is applied only when ready to operate.

10) Return the tube support plate to its closed position. **ATTENTION:** It is very important that you proceed to step 8 before this one because you can cause some tearing of the tube by closing the tube support plate.

11) Again check the tube position and eliminate any wrinkles. Next, cut off all ties as shown (Fig. 41).

12) Apply a light tension to the tube, pull out the outer ply of plastic for approximately 18" (45 cm) (Fig. 42) and replace it on the tip of stretchers (Fig. 43). In this way, it will be easier to pull out when it will be time to close the end of the tube.

13) You will finish to stretching the tube after the introduction of the first bales in the SilaTube.

4



Figure 43

OPERATION FOR SQUARE BALES (cont'd)

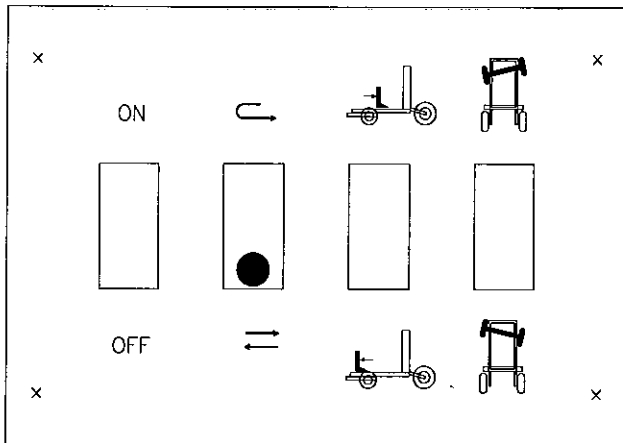


Figure 44

14) Before introducing the first bales, place the switch for the pusher on manual mode (Fig. 44).

15) A twine dispensing option is available to prevent rocking motion of the bales when they are ejected from the SilaTube. This option is useful when working with two or three bales high.

16) Pass the cord end under the retaining plate (A Fig. 45), through the ring (1 Fig. 45) and attach the cord end to the support ring on the opposite side (2 Fig. 46).

17) Verify and adjust the height of the rings. The cord must be equal with the center of the upper bale (Fig. 47).

18) The first step to stretch the tube is made by moving the stretchers upward. Place the bottom of the stretcher plate (see arrow) 3" higher (7.6 cm) than the total height of the bales (Fig. 48).

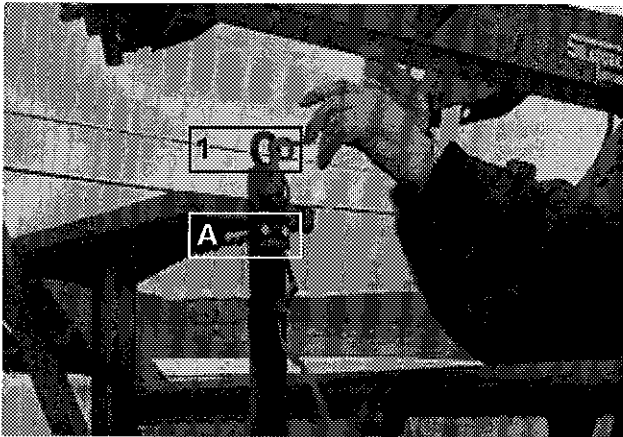


Figure 45

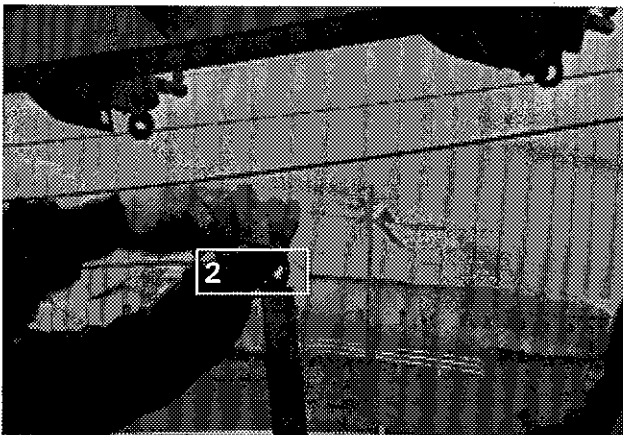


Figure 46



Figure 47

OPERATION FOR SQUARE BALES (cont'd)

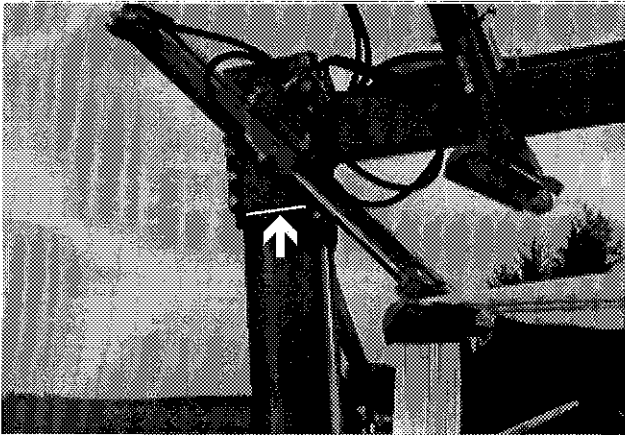


Figure 48



Figure 49

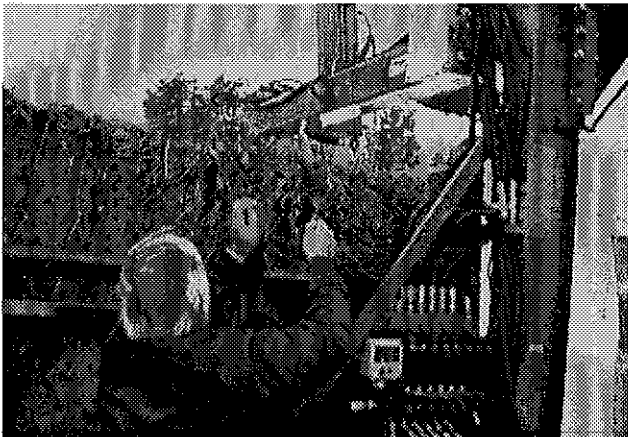


Figure 50

- 19) Second, stretch the tube enough to introduce the first stack of bales.
- 20) If needed, readjust the stretchers height (step 18).
- 21) Operate the control valve manually until the stack of bales goes beyond the stretchers ends by about 6" (15 cm) (Fig. 49).
- 22) Unhook the cord from its support (Fig. 50) and pull off the enough cord to go round the three first stacks. Cut the cord near the support and tie ends together firmly (Fig. 51).

4



Figure 51

OPERATION FOR SQUARE BALES (cont'd)

4



Figure 52

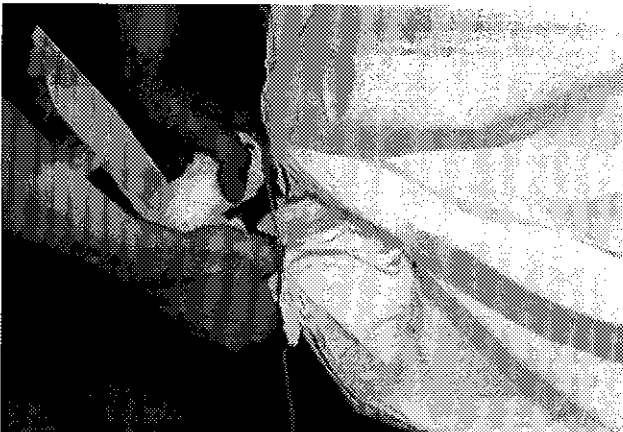


Figure 53



Figure 54

23) **CLOSING OF THE END OF TUBE:** Let the two stretchers go inward until they touch lightly the bales (Fig. 52). In this way, the plastic will be easier to slide. Pull out enough plastic to close, and tie the tube properly as shown (Fig. 53). **Do not forget:** stretch the tube again to introduce freely the bales in the tube (Fig. 54).

24) **STRETCH THE TUBE ONLY WHEN READY TO OPERATE.** It may lose some of its capacity to retract if kept stretched for a too long period of time. If you must stop loading bales for a while, **BRING THE TUBE DOWN TO A MODERATE TENSION.**

25) Adjust rear wheels in order to have a minimum amount of ground friction with the rear end of the SilaTube while keeping it in contact with the ground (Fig. 55)

26) Push the switch for pusher mode to automatic mode.

27) It is recommended to use a double spear on your loader to place the bales onto the SilaTube.



Figure 55

OPERATION FOR SQUARE BALES (cont'd)



Figure 56

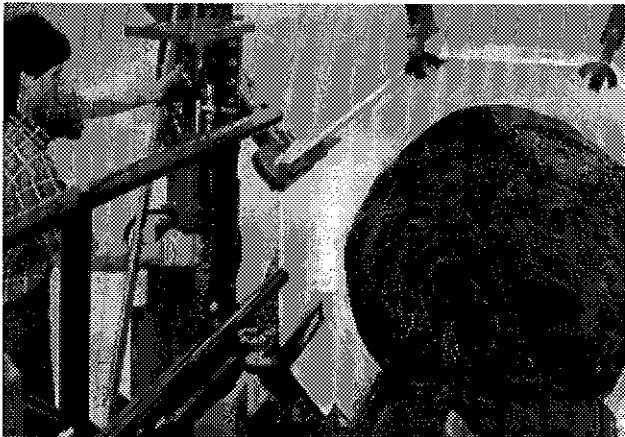


Figure 57

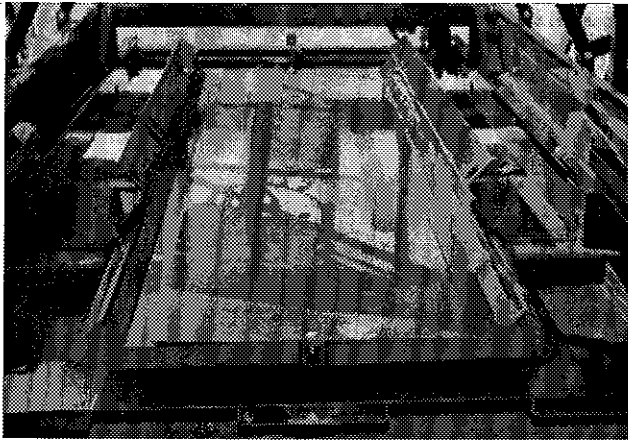


Figure 58

- 28) Place the required number of bale in each row before operate the pusher mechanism.
- 29) The pusher control and the steering option control can be controled from the remote control or from the control box.
- 30) After the first 8 or 10 bales, lift up lightly the rear wheels of the SilaTube to increase ground friction. This will ensure that the bales will be real tight against each other in the tube.
- 31) Towards the end of the tube, keep at least 60" (152 cm) of plastic, in order to allow for proper closure of the tube.
- 32) To push the last bale into the tube, install the pusher extension supplied with the SilaTube. Place it as shown (Fig. 56).
- 33) Push the bale with the pusher in manual mode in order to eject the last bale from SilaTube.
- 34) Remove the pusher extension and store it in it's receptacle on the right hand side of the SilaTube (Fig. 57).
- 35) Close up end of tube as previously described (Fig. 58).
- 36) Regularly inspect the tubes. If torn or punctured, repair openings with proper means.

4

OPERATION FOR ROUND BALES (cont'd)



4

Figure 59



Figure 60

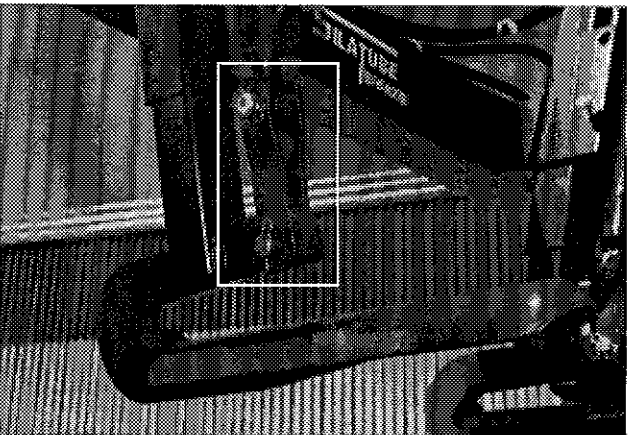


Figure 61

ROUND BALES TUBING

ADJUSTMENT OF SILATUBE

- 1) An optional kit is available. It allows tubing of round silage bales from 48" to 66" (122 cm to 167 cm) diameter. Follow the instructions below to make the proper adjustment.
- 2) The U-shaped bale guide must be adjusted to its minimal width (Fig. 59).
- 3) For tubing silage bales of 48" to 56" (122 cm to 142 cm).
 - 3.1 Adjust the upper stretchers to their lowest position (the clevis is not used) (Fig. 60) and install the extension as shown (Fig. 61).
 - 3.2 Adjust the lateral stretchers to the inside position (Fig. 62).
 - 3.3 Adjust the bottom stretchers to the inside position (Fig. 63).



Figure 62

OPERATION FOR ROUND BALES (cont'd)

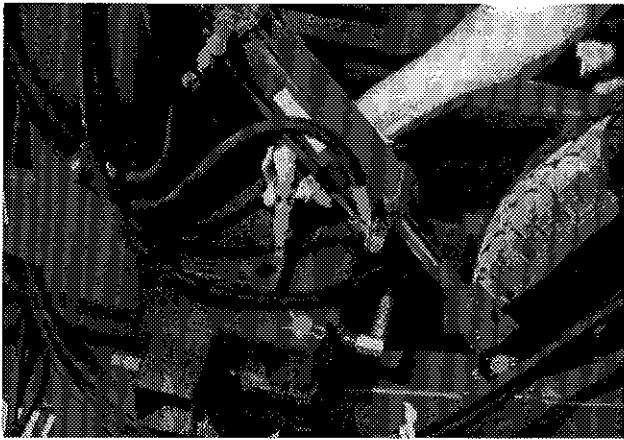


Figure 63

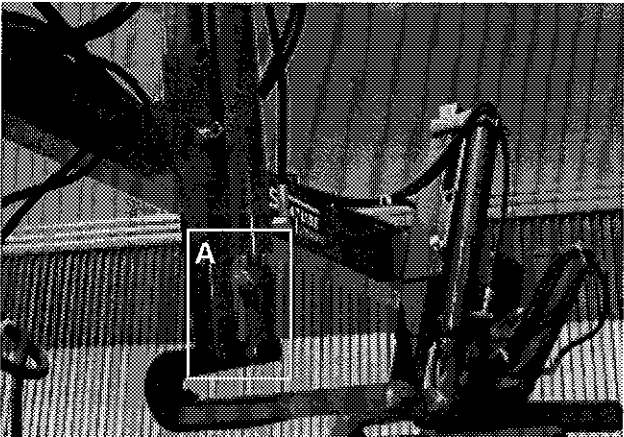


Figure 64

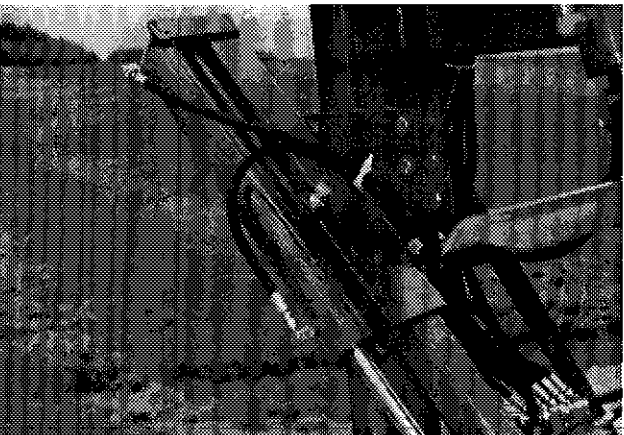


Figure 65

- 4) For tubing silage bales of 56" to 66" (142 cm to 168 cm).
 - 4.1 Adjust the upper stretchers to the lower hole (Fig. 64) and install the extension as shown (A Fig. 64).
 - 4.2 Adjust the lateral stretchers to the outside position (Fig. 65).
 - 4.3 Adjust the lower stretchers to the outside position (Fig. 66).
- 5) Use turnbuckles provided (Fig. 67) to adjust lower guide according to the width of the bales (Fig. 68). It is important that the bales are centred on the machine.



Figure 66

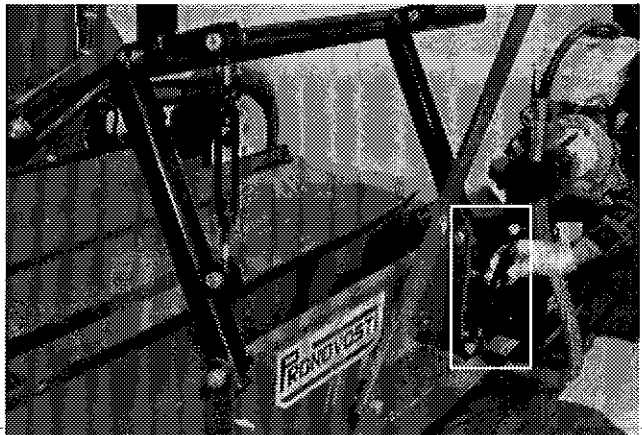


Figure 67

4

OPERATION FOR ROUND BALES (cont'd)

4



Figure 68

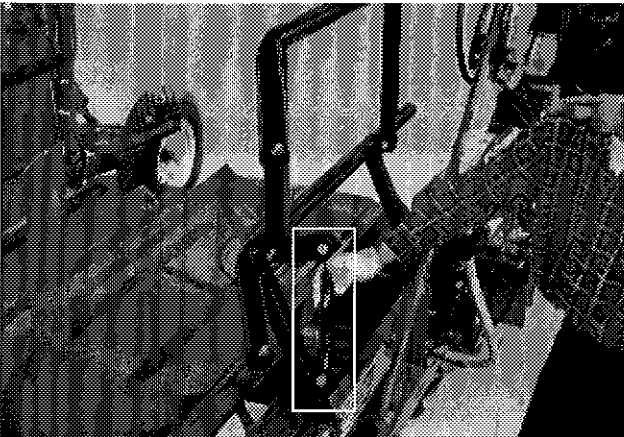


Figure 69

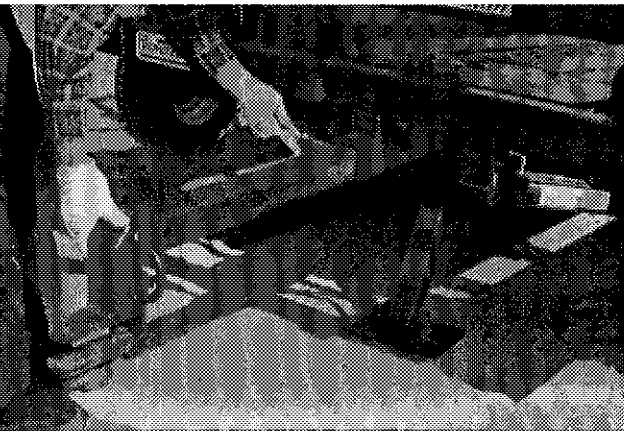


Figure 70

- 6) The upper guide is not usefull for tubing of round silage bale. Use turnbuckles provided (Fig. 69) and adjust upper guide to a larger dimension to avoid it being an obstacle.
- 7) Locate the rear end of the SilaTube approximately 5' (152 cm) away from the point where you want to position the end of the tube. This will compensate if there is some slippage of the first couple of bales until there is enough ground friction to push the SilaTube forward.
- 8) The SilaTube can be operated with the tongue assembly on. If there is a risk of interference with the front of the tractor or with uneven ground, it is recommended to remove it (Fig. 70).
- 9) For maximum operating speed, you may set the engine to full throttle, although it is preferable to run it a speed closer to your rate of bale supply to machine. This will result in a more economical operation.

OPERATION FOR ROUND BALES (cont'd)

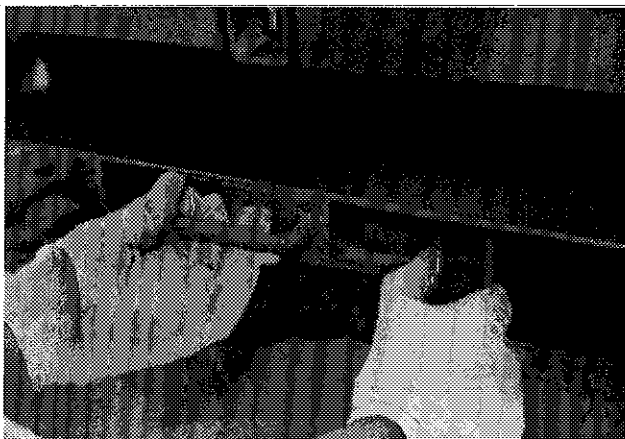


Figure 71

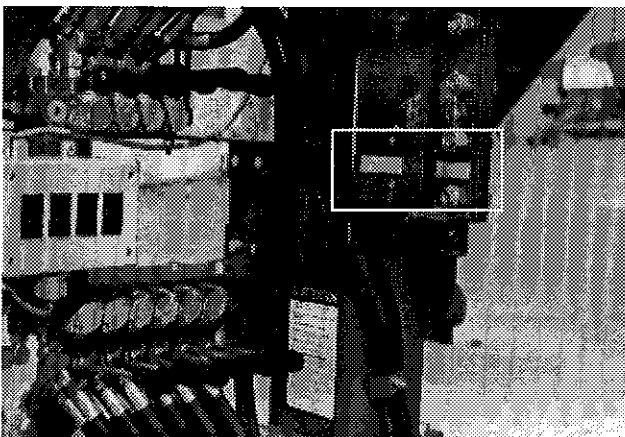


Figure 72



Figure 73

OPERATION

- 1) Start engine.
- 2) Pull out the tube support plate (Fig. 71).
- 3) Adjust the height of the two lateral stretchers to the lower yellow mark (Fig. 72).
- 4) Place all the stretchers to their inward position.
- 5) Remove the tube from its box, lay it flat on the ground. Place your forearm at the center of the tube to manipulate it (Fig. 73).
- 6) Install the tube on the stretchers arms. Slide it carefully to the bottom of the stretcher arms, being careful to remove all wrinkles, since they could cause some tearing of the tube (Fig. 74). Place it so that the tube name is facing outside when it unfolds.
- 7) Open each pair of stretcher arms to apply a light tension to the tube, giving it a shape that resembles of a bale.
- 8) Return the tube support plate to its closed position. **WARNING:** It is very important that you proceed to step 7 before this one because you can cause some tearing of the tube by closing the tube support plate.

4



Figure 74

OPERATION FOR ROUND BALES (cont'd)

4

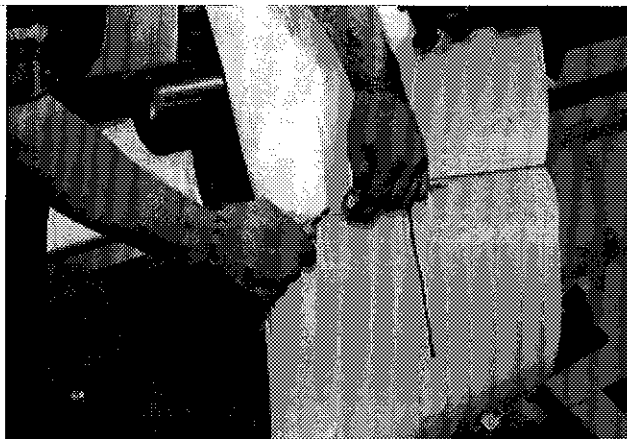


Figure 75

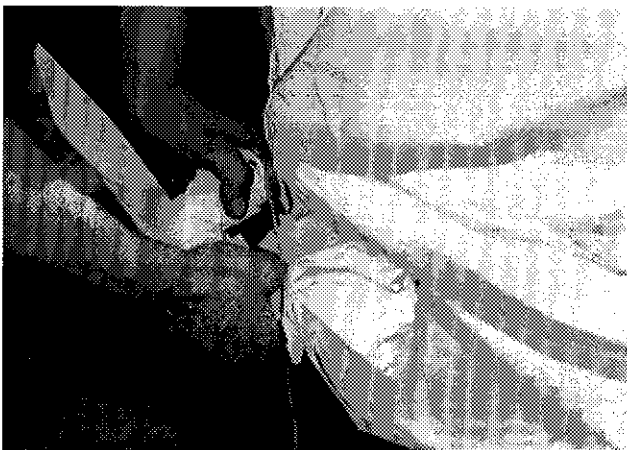


Figure 76



Figure 77

- 9) Again check the tube position and eliminate any wrinkles. Next, cut off all ties as shown (Fig. 75).
- 10) Now it's time to close the end of the tube. Pull out the outer ply of the plastic tube. Pull about 36" (91 cm) and close properly the tube as shown (Fig. 76 et Fig. 77).
- 11) **STRETCH THE TUBE ONLY WHEN READY TO OPERATE.** It may lose some of its capacity to retract if kept stretched for a too long period of time. If you must stop loading bales for a while, **BRING THE TUBE DOWN TO A MODERATE TENSION.**
- 12) Before loading the first bale, place the switch for pusher mode to manual mode (Fig. 78).
- 13) Load the first bale on the machine, operate the control valve manually until the bale approaches the arms and stop it there.
- 14) Stretch the tube by operating the three valves **SIMULTANEOUSLY** (Fig. 79) to obtain a **CLEARANCE OF APPROXIMATELY 2" to 3"** (5 cm to 7.6 cm) between the bale and the tube (Fig. 80). Readjust stretcher arms individually if necessary.

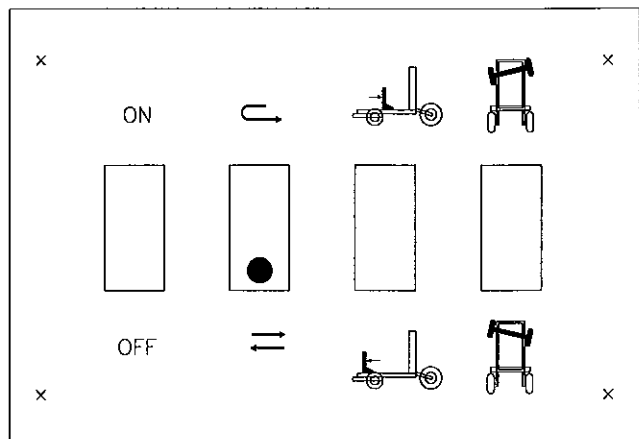


Figure 78

OPERATION FOR ROUND BALES (cont'd)

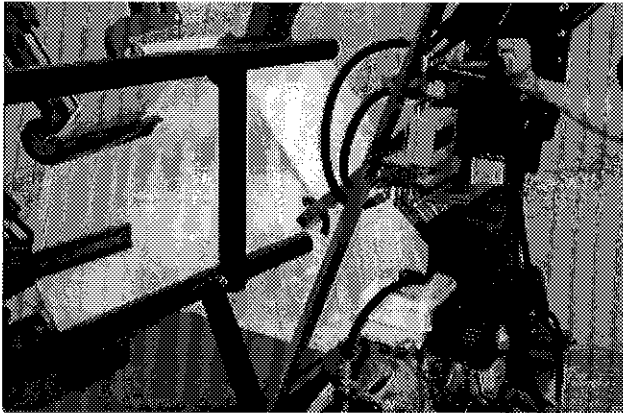


Figure 79



Figure 80



Figure 81

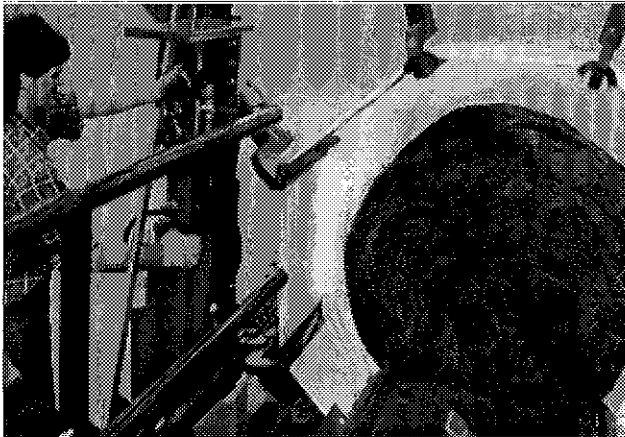
- 15) Adjust rear wheels in order to have a minimum amount of ground friction with the rear end of the SilaTube while keeping it in contact with the ground (Fig. 81).
- 16) Place the switch for pusher mode to automatic mode.
- 17) It is recommended to use a double spear on your loader to place the bales onto the SilaTube.
- 18) After the first 4 or 5 bales, lift up lightly the rear wheels of the SilaTube to increase ground friction. This will ensure that the bales will be real tight against each other in the tube.
- 19) Towards the end of the tube, watch the plastic quantity on the stretcher arms. Keep at least 36" (91 cm) of plastic for 4' (122 cm) bales and a bit more for 5' (152 cm) bales in order to allow for proper closure of the tube.
- 20) To push the last bale into the tube, install the pusher extension supplied with the SilaTube (Fig. 82).

4



Figure 82

OPERATION FOR ROUND BALES (cont'd)



4
Figure 83

- 21) Push the bale with the pusher in manual mode in order to eject the last bale from SilaTube.
- 22) Remove the pusher extension and store it in it's receptacle on the right hand side of the SilaTube (Fig. 83).
- 23) Close up end of tube as previously described (Fig. 84).
- 24) Regularly inspect the tubes. If torn or punctured, repair openings with proper means.



Figure 84

MAINTENANCE

- 1) Refer to the manufacturer's instructions for the engine.
- 2) Use a high quality lithium base grease containing molybdenum disulfide (MoS_2) such as «Esso Unirex EP1 Moly», «DARINA XL-Multi Season Moly, Grade #1» from Shell or equivalent.
- 3) Wipe off all grease fittings with a clean cloth before adding grease in order to avoid injecting dirt or sand.
- 4) Repair or replace damaged grease fittings.
- 5) Lubricate stretcher arms guides every 20 hours of operation.
- 6) Lubricate all grease fittings every 20 hours of operation.
- 7) Open, clean and lubricate wheel bearings once a year.
- 8) Check oil level in hydraulic reservoir every 20 hours of operation. If necessary add good quality trans hydraulic oil such as «Trans Hydraulic Duratran» from Petro-Canada, «DONAX TD» from Shell or equivalent.
- 9) Change oil filter after the first 50 hours of operation and then every 250 hours. Use replacement filter no. K-22001, PRONOVOST part No. 32007.
- 10) Check all nuts and bolts once a year. If necessary use torque chart on page 49.
- 11) Check all bolts on wheels after first 5 hours of operation and then every 50 hours.
- 12) Check tire pressure every 50 hours. Adjust according to manufacturer's recommendation indicated on the tires.

5

STORAGE

- 1) Store the SilaTube in a cool, dry place.
- 2) Lower the SilaTube frame on wooden blocks.
- 3) Keep tires off the ground and cover them if left exposed to the sun.
- 4) Keep all piston rods in the retracted position. This will assure better protection against the elements.
- 5) Clean your SilaTube.
- 6) Touch-up or repaint if necessary.
- 7) Lubricate all points before storage.
- 8) Drain all fuel from tank and follow engine manufacturer's storage recommendations.

SPECIFICATIONS

SilaTube model	P-6400
Overall length	150" (4.71 m) (without the 28" (71 cm) tongue)
Overall width	105" (267 cm) (motor in transport position)
Height	114" (289 cm) (wheels in transport position)
Round bales	48" to 66" (122 cm to 168 cm) diameter
Square bales height	37" to 72" (939 cm to 1828 cm)
Square bales width	36" to 60" (914 cm to 1524 cm)
Engine	HONDA 9 HP
Optional engine	HONDA 11HP
Electric starting	Standard
Two stages hyd. pump	3 gal at 2800 psi / 11 gal at 1400 psi
Front hub	cap. 2500 lbs (1136 kg) 5 bolts
Rear hub	cap. 2500 lbs (1136 kg) 5 bolts
Front rim	10" x 6" - 5 bolts
Rear rim	15" x 5" - 5 bolts
Front tires	20.5" x 8" x 10" - 4 plys (with tube)
Rear tires	7.60" x 15" - 6 plys (with tube)
Oil tank capacity	5.75 gal US (4.75 gal imp.) (21.75 liters)
Hyd. steering adjustment	Option
Working lights	Option
Road lights	Option
Motorized moving kit	Option
Hitch weight	2740 lbs (1245 kg) app.
Total weight	6340 lbs (2881 kg) app.

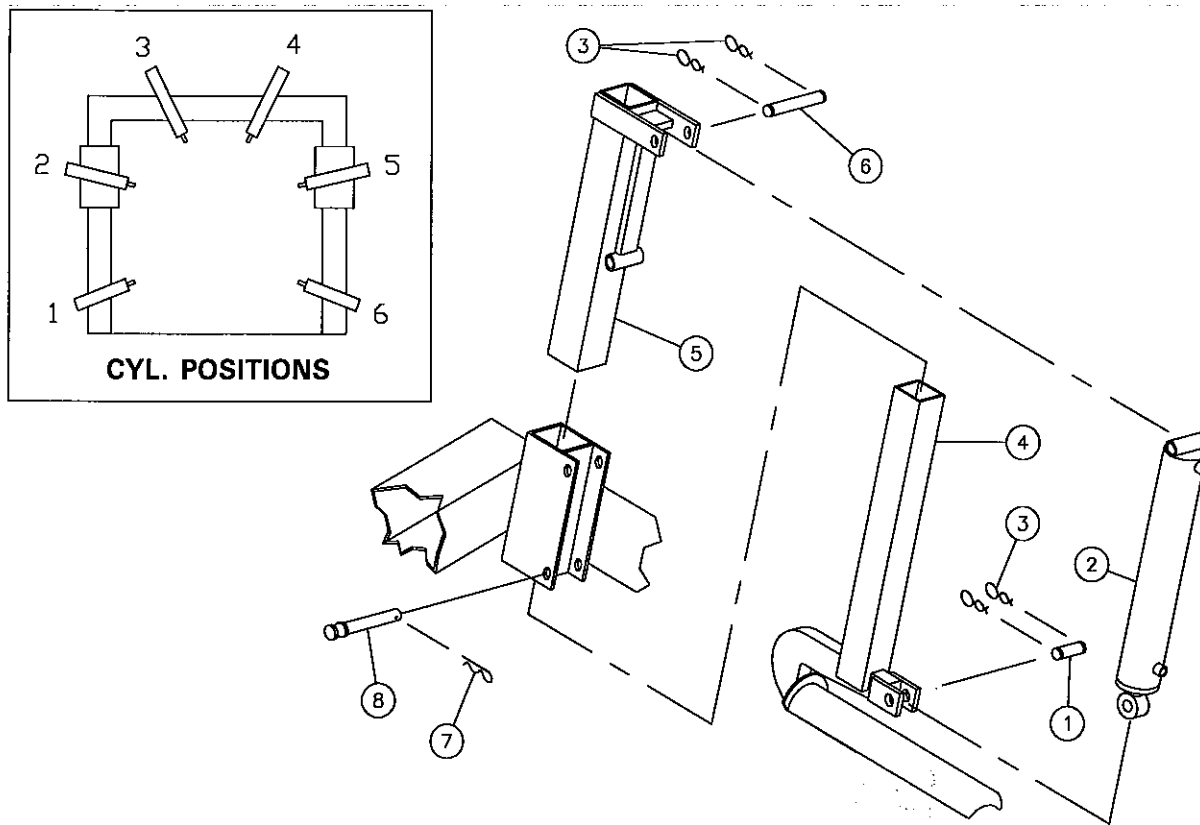
Design and specifications subject to change without notice.

PLASTIC TUBES TO USE ACCORDING TO BALES DIMENSIONS

Round bales	For bales 48" to 56" (1.22 to 1.42 m) diameter	73½" (1.87 m) lay flat
Round bales	For bales 56" to 66" (1.42 to 1.68 m) diameter	86" (2.18 m) lay flat
Square bales	Bales height + Bales width = Half-perimeter	
Square bales	For half-perimeter 88" to 104" (2.24 to 2.64 m)	86" (2.18 m) lay flat
Square bales	For half-perimeter 102" to 120" (2.59 to 3.05 m)	100" (2.54 m) lay flat
Square bales	For half-perimeter 115" to 136" (2.92 to 3.54 m)	113" (2.87 m) lay flat

7

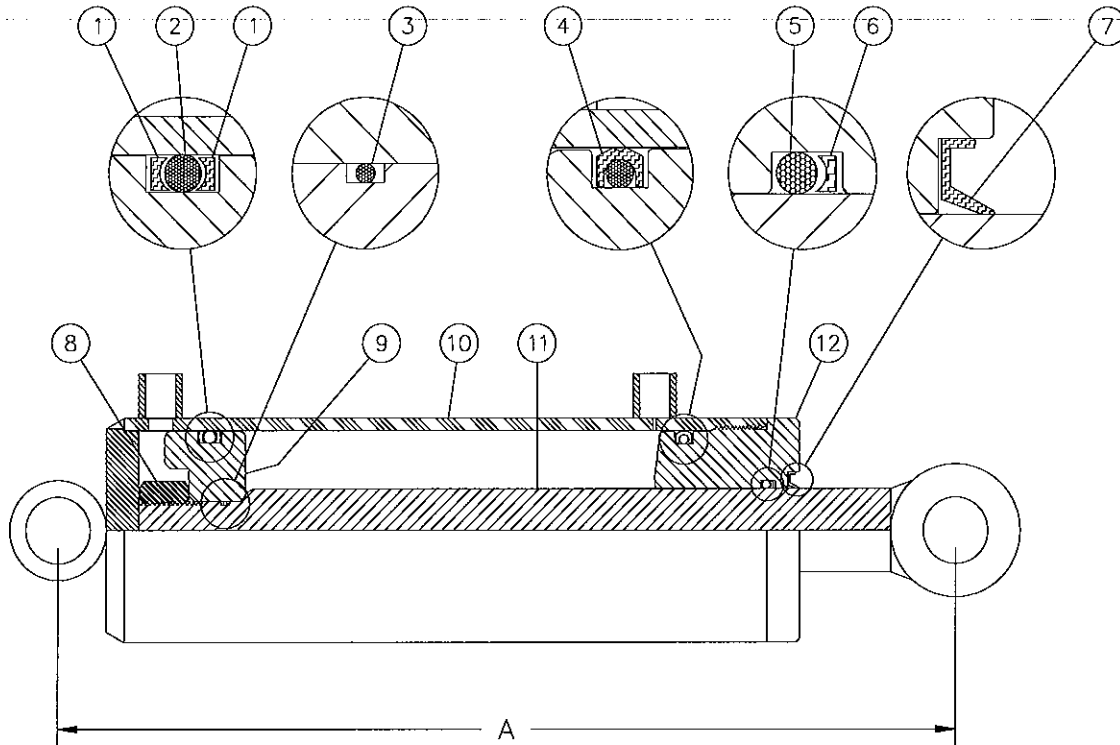
DETAIL OF ARCH P-6400



REF.	PART #	DESCRIPTION	QTY CYL POSITION #					
			1	2	3	4	5	6
1	Std.	Pin 1" x 3" lg	1	1	1	1	1	1
2	30H10	Cylinder	1	-	-	-	-	1
2	30H23	Cylinder	-	1	1	1	1	-
3	Std.	Hair pin 1/8"	4	4	4	4	4	4
4	110-04051	Stretcher arm	-	1	1	1	1	-
4	32156	Stretcher arm	1	-	-	-	-	1
5	32157	Stretcher arm guide	1	-	-	-	-	1
5	110-04041	Stretcher arm guide	-	1	1	1	1	-
6	32160	Pin 1" x 5" lg	1	1	1	1	1	1
7	Std.	Hitch pin clip 3/16"	1	1	1	1	1	1
8	32161	Pin 1" x 5 1/4" lg	1	1	1	1	1	1

8

ARCH CYLINDER P-6400



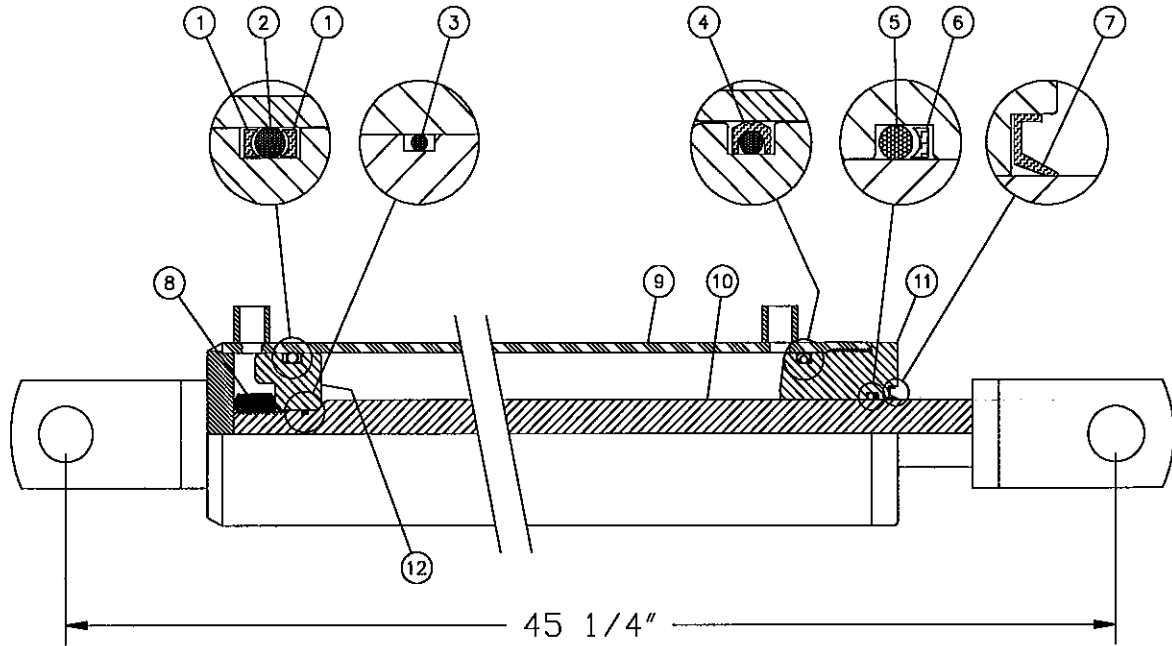
MODEL	LENGTH A
30H10	16 3/4"
30H23	29 3/4"

REF.	PART #	DESCRIPTION	QTY CYLINDER #	
			30H10	30H23
1	BU-334	Back-up ring 3/16" x 2 5/8" x 3"	2	2
2	OR-334	O-ring 3/16" x 2 5/8" x 3"	2	2
3	OR-018	O-ring 1/16" x 3/4" x 7/8"	1	1
4	PSP-334	O-ring "heavy duty" 3/16" x 2 5/8" x 3"	1	1
5	OR-218	O-ring 1/8" x 1 1/4" x 1 1/2"	1	1
6	BU-218	Back-up ring 1/8" x 1 1/4" x 1 1/2"	1	1
7	CR12330	Wiper 1/8" x 1 1/4" x 1 1/2"	1	1
8	Std.	Nut 7/8" NF	1	1
9	D-6000	Piston 3" dia.	1	1
10	D-6168	Cylinder body 3" for 30H10	1	-
10	110-03541	Cylinder body 3" for 30H23	-	1
11	D-6099	Piston rod 1 1/4" for 30H10	1	-
11	110-03531	Piston rod 1 1/4" for 30H23	-	1
12	D-6093	Head 3" dia.	1	1
NI*	32204	Repair kit for cylinder 3" (includes # 1, 2, 3, 4, 5, 6, & 7)	1	1

*NI= NOT ILLUSTRATED

8

LATERAL CYLINDER # 25E35

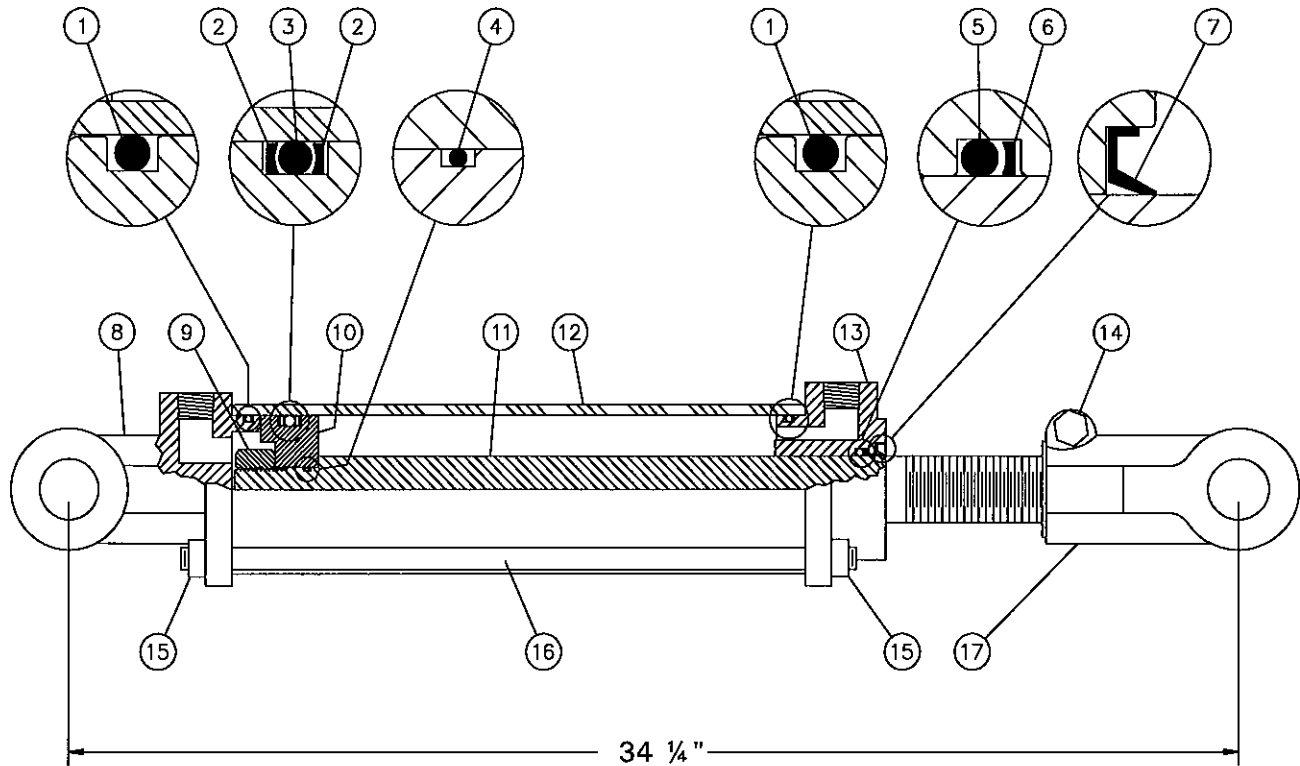


8

REF.	PART #	DESCRIPTION	QTY
1	BU-330	Back-up 3/16" x 2 1/8" x 2 1/2"	2
2	OR-330	O-ring 3/16" x 2 1/8" x 2 1/2"	1
3	OR-018	O-ring 1/16" x 3/4" x 7/8"	1
4	PSP-330	O-ring "heavy duty" 3/16" x 2 1/8" x 2 1/2"	1
5	OR-224	O-ring 1/8" x 1 3/4" x 2"	1
6	BU-224	Back-up 1/8" x 1 3/4" x 2"	1
7	CR17240	Wiper	1
8	338-48000	Nut 7/8" - 14	1
9	110-03561	Cylinder body 2 1/2" dia. for 25E35	1
10	110-03551	Piston rod 1 3/4" dia. for 25E35	1
11	150-01161	Head 2 1/2" dia.	1
12	150-01151	Piston 2 1/2" dia.	1
NI*	32244	Repair kit for cylinder (includes # 1 à 7)	1

*NI= NOT ILLUSTRATED

CYLINDER 20TR24

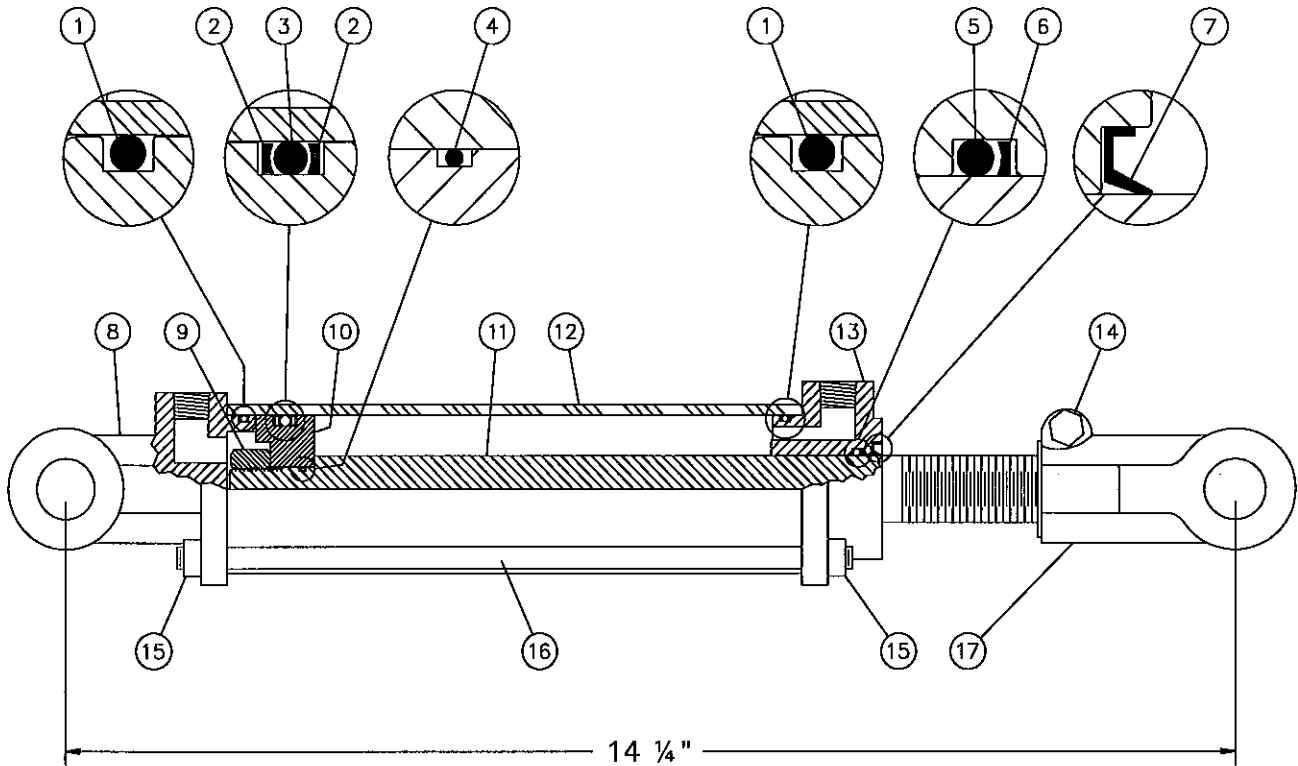


REF.	PART #	DESCRIPTION	QTY
1	See RK20TR	O-ring 3/32" x 1 13/16" x 2"	2
2	See RK20TR	Back-up 2" o.d. x 1/8" ø	2
3	See RK20TR	O-ring 3/16" x 1 5/8" x 2"	1
4	See RK20TR	O-ring 1/16" x 5/8" x 3/4"	1
5	See RK20TR	O-ring 1/8" x 1 1/8" x 1 3/8"	1
6	See RK20TR	Back-up 1 3/8" o.d. x 1/8" ø	1
7	See RK20TR	Wiper 1 1/8" i.d. x 1 5/8" o.d.	1
8	492400	Yoke (for 2" tube)	1
9	Std.	Nut 3/4" NF	1
10	4924-30	Piston 2" ø	1
11	491980-24	Piston rod 1 1/8"	1
12	491608-24	Cylinder body 2" ø	1
13	492420	Head (for 2" tube)	1
14	Std.	Bolt 3/8" NC x 2 1/4" + nut	1
15	Std.	Nut 3/8" NC	8
16	Std.	Threaded rod 3/8" NC x 28" lg	4
17	458599	Yoke (for 1 1/8" rod)	1
NI*	8183	Pin 1" ø + cotter pin	2
NI*	RK20TR	Repair kit for cylinder 2" (includes # 1, 2, 3, 4, 5, 6, & 7)	1

8

*NI = NOT ILLUSTRATED

CYLINDER 25TR04

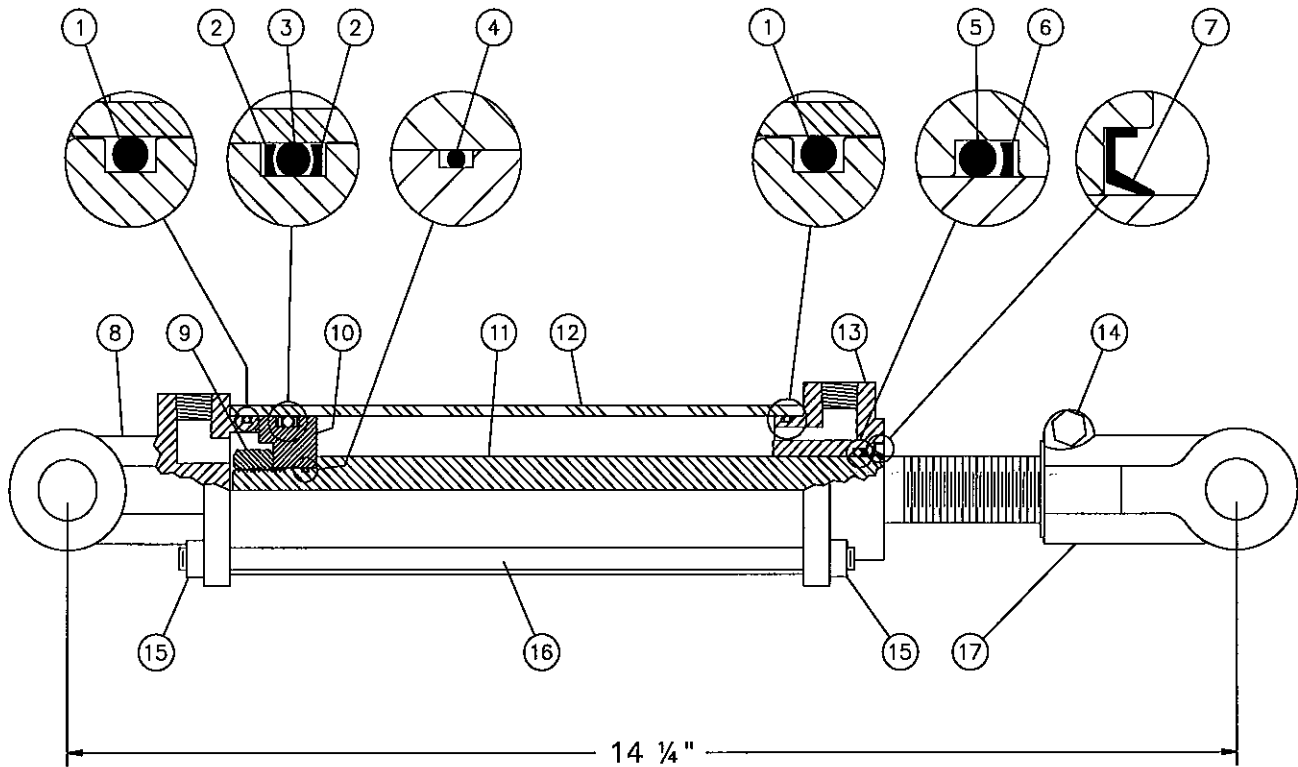


REF.	PART #	DESCRIPTION	QTY
1	See RK25TR	O-ring 1/8" x 2 1/4" x 2 1/2"	2
2	See RK25TR	Back-up 2 1/2" o.d. x 1/2" ø	2
3	See RK25TR	O-ring 3/16" x 2 1/8" x 2 1/2"	1
4	See RK25TR	O-ring 1/16" x 5/8" x 3/4"	1
5	See RK25TR	O-ring 1/8" x 1 1/8" x 1 3/8"	1
6	See RK25TR	Back-up 1 3/8" o.d. x 1/8" ø	1
7	See RK25TR	Wiper 1 1/8" i.d. x 1 5/8" o.d.	1
8	492401	Yoke (for 2 1/2" tube)	1
9	Std.	Nut 3/4" NF	1
10	4924-31	Piston 2 1/2" ø	1
11	491980-04	Piston rod 1 1/8"	1
12	491668-04	Cylinder body 2 1/2" ø	1
13	492421	Head (for 2 1/2" tube)	1
14	Std.	Bolt 3/8" NC x 2 1/4" + nut	1
15	Std.	Nut 3/8" NC	8
16	Std.	Threaded rod 3/8" NC x 8" lg	4
17	458599	Yoke (for 1 1/8" rod)	1
NI*	8183	Pin 1" ø + cotter pin	2
NI*	RK25TR	Repair kit for cylinder 2 1/2" (includes # 1, 2, 3, 4, 5, 6, & 7)	1

*NI = NOT ILLUSTRATED

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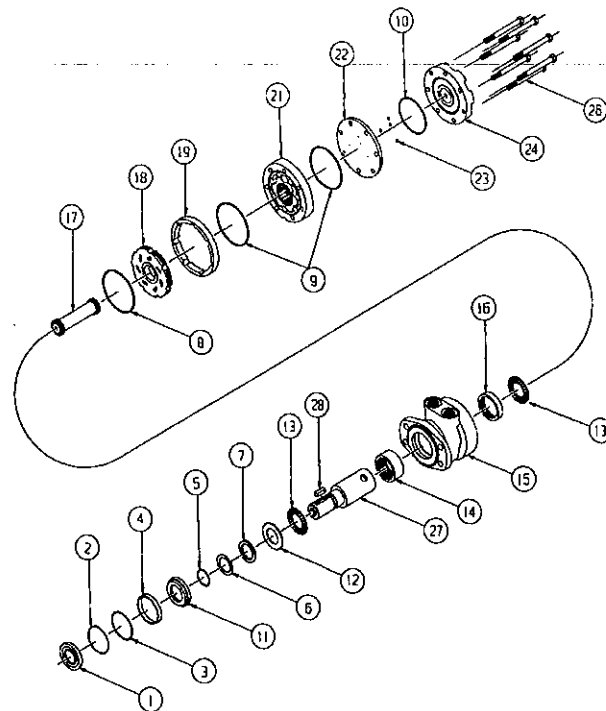
CYLINDER 30TR04



REF.	PART #	DESCRIPTION	QTY
1	See RK30TR	O-ring 1/8" x 2 3/4" x 3"	2
2	See RK30TR	Back-up 3" o.d. x 1/8" ø	2
3	See RK30TR	O-ring 3/16" x 2 5/8" x 3"	1
4	See RK30TR	O-ring 1/16" x 7/8" x 1"	1
5	See RK30TR	O-ring 1/8" x 1 1/4" x 1 1/2"	1
6	See RK30TR	Back-up 1 1/2" o.d. x 1/8" ø	1
7	See RK30TR	Wiper 1 1/4" i.d. x 1 3/4" o.d.	1
8	492402	Yoke (for 3" tube)	1
9	Std.	Nut 3/4" NF	1
10	4924-32	Piston 3" ø	1
11	492088-4	Piston rod 1 1/4"	1
12	491738-4	Cylinder body 3" ø	1
13	492440	Head (for 3" tube)	1
14	Std.	Bolt 3/8" NC x 2 1/4" + nut	1
15	Std.	Nut 3/8" NC	8
16	Std.	Threaded rod 3/8" NC x 8" lg	4
17	458600	Yoke (for 1 1/4" rod)	1
NI*	8183	Pin 1" ø + cotter pin	2
NI*	RK30TR	Repair kit for cylinder 3" (includes # 1, 2, 3, 4, 5, 6, & 7)	1

*NI = NOT ILLUSTRATED

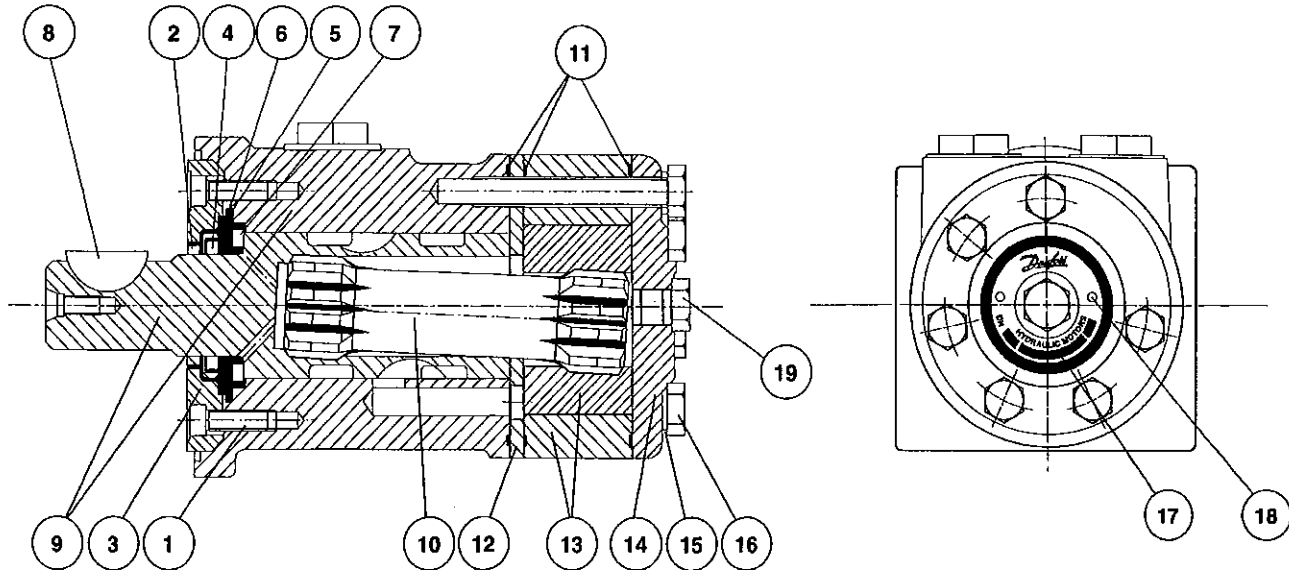
PUSHER HYDRAULIC MOTOR #RE18080610



REF.	PART #	DESCRIPTION	QTY
1	See PE444002	Dust seal	1
2	See PE444002	Split wire ring	1
3	See PE444002	Metal backup shim	1
4	See PE444002	High pressure seal	1
5	See PE444002	Metal backup shim	1
6	See PE444002	Teflon backup seal	1
7	See PE444002	Shaft seal	1
8	See PE444002	Housing seal	1
9	See PE444002	Body seal	2
10	See PE444002	Endcover seal	1
11	See PE444003	Seal carrier	1
12	See PE444003	Thrust washer	1
13	PE018059	Thrust bearing	2
14	PE018003	Front housing bearing	1
15	PE130823	Housing	1
16	PE018002	Rear housing bearing	1
17	PE014007	Drive link	1
18	PE015007	Manifold	1
19	PE018041	Manifold boot	1
21	PE247005	Rotor assembly	1
22	See PE012001	Balance plate	1
23	See PE012001	Steel balls	4
24	PE016001	Endcover	1
26	PE445018	Assembly bolt	7
27	PE011201	Shaft	1
28	PE449100	Shaft key	1
NI*	PE444001	Repair kit (includes # 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12))	1
NI*	PE444002	Repair kit (includes # 1, 2, 3, 4, 5, 6, 7, 8, 9 & 10) (see PE444001)	2
NI*	PE444003	Repair kit (includes # 11 & 12) (see PE444001)	2
NI*	PE012001	Balance plate kit (includes # 22 & 23)	2

*NI = NOT ILLUSTRATED

HYDRAULIC MOTOR # DH 400

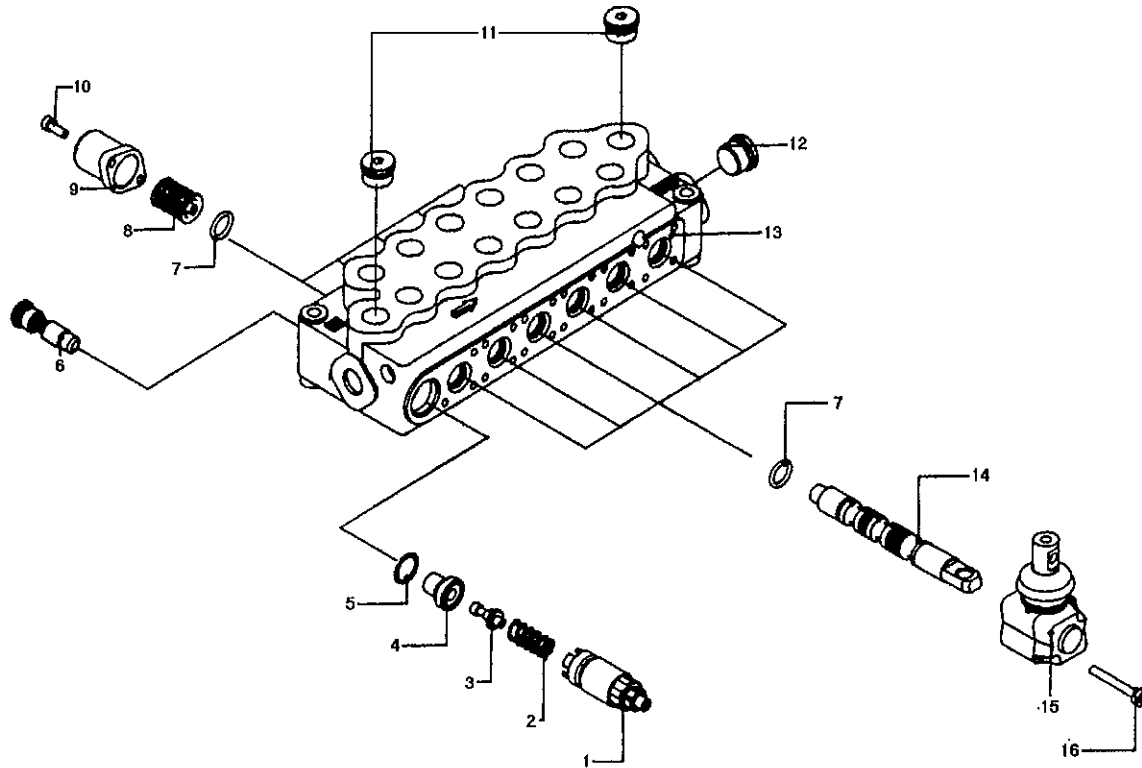


REF.	CODE #	DESCRIPTION	QTY
			DH 400
1	681X1961	Screw M5 x 16mm	6
2	151-1313	Dust seal ring	1
3	151-1827	Spigot flange	1
4	633B3385	Shaft seal BAKDH ring	1
5	633B1333	O-ring	1
6	151-1608	Bearing race	1
7	151-1458	Axial needle bearing	1
8	682L9054	Woodruff key	1
9	-----	Housing and output shaft	not sold
10	151-2651	Cardan shaft	1
11	633B1173	O-ring	3
12	151-1713	Distributor plate	1
13	151-1187	Gear wheel set	1
14	151-2641	End cover	1
15	684X2481	Washer	6
16	681X0188	Screw M8 x 1.25mm Din 931 x 80mm lg	6
17	151A0415	Name plate	1
18	681Z1011	Drive screw	2
19	631X2013	Drain plug 7/16"-20 UNF	1
NI*	151-1273	Set of seals	1

*NI = NOT ILLUSTRATED

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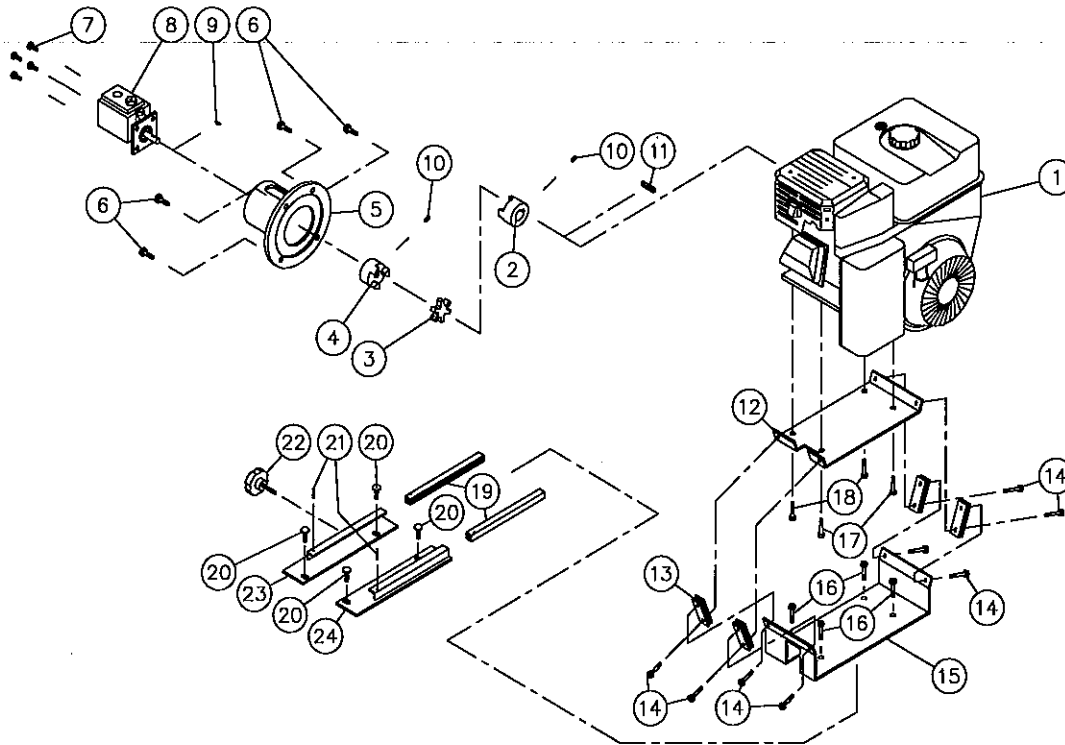
CONTROL VALVE



8

REF.	PART #	DESCRIPTION	QTY				
			32239	32240	32241	32242	32238
		Number of spool	1	2	3	4	6
1	BM32167	Relief valve	1	1	1	1	1
2	BM32071	Spring	1	1	1	1	1
3	BM32072	Spring seat pusher	1	1	1	1	1
4	BM32073	Ring	1	1	1	1	1
5	BM32074	Seal	1	1	1	1	1
6	BM32076	Kit.....	1	1	1	1	1
7	BM32077	O-ring	2	4	6	8	12
8	BM32078	Spring	1	2	3	4	6
9	BM32079	Endcap	1	2	3	4	6
10	BM32080	Screw	2	4	6	8	12
11	BM32081	Plug SAE8	2	2	2	2	2
12	BM32082	Plug	1	1	1	1	1
13	BM32168	Valve housing	1	1	1	1	1
14	BM32085	Valve spool	1	2	3	4	6
15	BM32086	Lever	1	2	3	4	6
16	BM32087	Screw	2	4	6	8	12

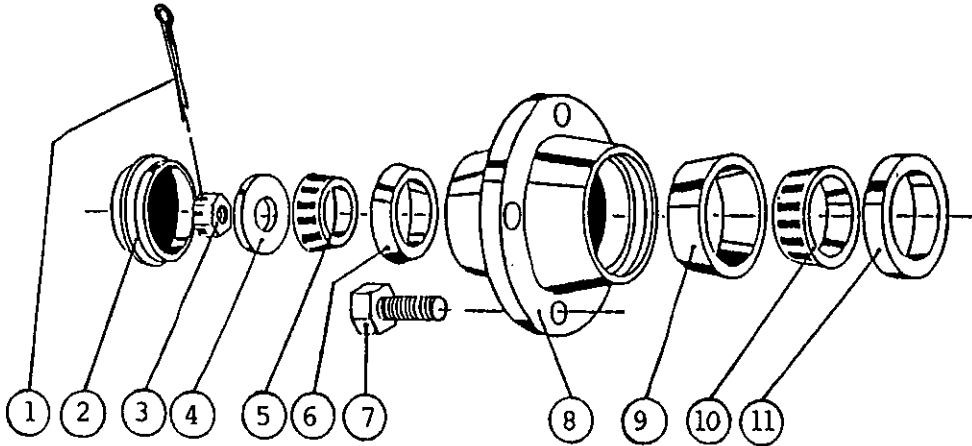
ENGINE ASSEMBLY WITH PUMP



REF.	PART #	DESCRIPTION	QTY
			P-6400
1	32231	Engine HONDA 9HP with electric starter	1
1	32256	Engine HONDA 11HP with electric starter	opt.
2	32133	Flexible coupling 1" ø	1
3	32134	Flexible coupling	1
4	32135	Flexible coupling ½" ø	1
5	32136	Mounting flange	1
6	Std.	Bolt 3/8" NC x 1" lg + lock washer	4
7	Std.	Bolt 5/16" NC x 3/4" lg + lock washer	4
8	32002	Pump	1
9	Std.	Woodruff key 1/8"	1
10	Std.	Socket set screw 5/16" NC x 1/2"	2
11	Std.	Square key 1/4" x 1 1/2" lg	1
12	32194	Upper motor mounting plate	1
13	32195	Anti-vibration supports	8
14	Std.	Bolt 5/16" NC x 1" lg + nylon locknut & flat washer	8
15	32196	Lower motor mounting plate	1
16	Std.	Bolt 3/8" NC x 1" lg + nylon locknut	4
17	Std.	Bolt 3/8" NC x 1 ¼" lg + nylon locknut	2
18	Std.	Bolt 3/8" NC x 1 ¼" lg + nylon locknut & flat washer	2
19	190-00201	Sliding engine mount	2
20	Std.	Carriage bolt 3/8" NC x 1" lg + nylon locknut	4
21	Std.	Roll pin 1/8" x 1" lg	2
22	110-00591	Slide handle	1
23	110-00581	Left fixation for slide	1
24	110-00581	Right fixation for slide	1

8

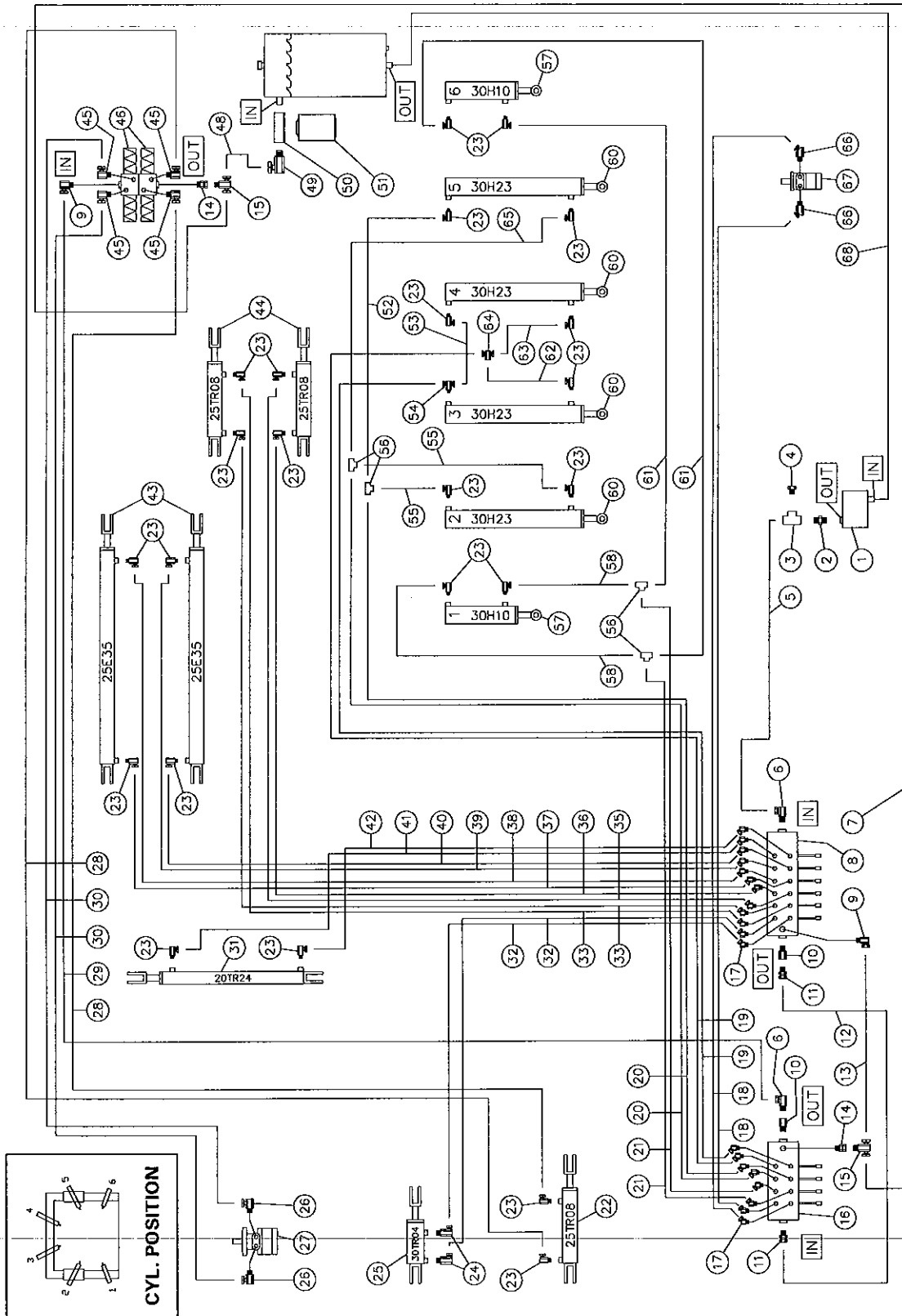
HUB H2500



REF.	PART #	DESCRIPTION	QTY
1	Std.	Cotter pin 5/32" x 1 1/2"	1
2	53019	Dust cap D-1000 1.973" ø	1
3	51529	Castle nut 1" NF x 9/16" thick	1
4	Std.	Flat washer 1"	1
5	53058	Roller bearing Timken: cone no. L44649	1
6	53023	Roller bearing Timken: cup no. L44610	1
7	53024	Rim screw 1/2"	5
8	53059	Hub only H2500	1
9	51415	Roller bearing Timken: cup no. LM48510	1
10	51416	Roller bearing Timken: cone no. LM48548	1
11	51535	Oil seal no. CR17415	1

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HYDRAULIC SYSTEM



HYDRAULIC SYSTEM (cont'd)

WARNING: This drawing shown a SilaTube P-6400 equipped with all the options availables. A SilaTube without option use only a 6 spool valve and one solenoid valve. If there is one or more option installed, a valve with 1 up to 4 spool must be added.

- OPT. 6405 = Round bales option
- OPT. 6415 = Hydraulic U-shaped guide option
- OPT. 6425 = Motorized moving kit option
- OPT. 6435 = Hydraulic steering option

REF.	PART #	DESCRIPTION	QTY				
			BASE P-6400	OPT. P-6405	OPT. P-6415	OPT. P-6425	OPT. P-6435
1	32002	Two stages 3/11 hydraulic pump	1	-	-	-	-
2	Std.	Straight female pipe to male pipe 1/2" C3069 x 8	1	-	-	-	-
3	Std.	"T" 1/2" C3709 x 8	1	-	-	-	-
4	Std.	Plug 1/2" C3159 x 8	1	-	-	-	-
5	190-00821	Hose 1/2" x 32" lg + 2 fittings 8U108	1	-	-	-	-
6	Std.	Fitting 90° 9515 x 10 x 8	2	-	-	-	-
7	190-00841	Hose 1/2" x 170" lg + 2 fittings 8U108	1	-	-	-	-
8	32238	6 spool control valve	1	-	-	-	-
9	Std.	Fitting 90° 9515 x 8 x 8	2	-	-	-	-
10	Std.	Fitting (power beyond)	2	-	-	-	-
11	Std.	Fitting 9315 x 10 x 8	2	-	-	-	-
12	190-00831	Hose 1/2" x 20 1/2" lg + 2 fittings 8U108	1	-	-	-	-
13	190-01111	Hose 1/2" x 33" lg + 2 fittings 8U108	1	-	-	-	-
14	Std.	Fitting 9315 x 8 x 8	2	-	-	-	-
15	Std.	"T" 15855 x 8 x 8 x 8	2	-	-	-	-
16	32239	1 spool control valve	-	-	1	1	1
16	32240	2 spool control valve	-	1	-	-	-
16	32241	3 spool control valve	-	-	-	-	-
16	32242	4 spool control valve	-	-	-	-	-
17	Std.	Fitting 45° 9365 x 6 x 6	12	4	2	2	-
18	190-01131	Hose 3/8" x 105" lg + 2 fittings 6U106	-	-	-	2	-
19	190-00931	Hose 3/8" x 76" lg + 2 fittings 6U106	-	2	-	-	-
20	190-00891	Hose 3/8" x 44" lg + 2 fittings 6U106	2	-	-	-	-
21	190-00971	Hose 3/8" x 14" lg + 2 fittings 6U106	-	2	-	-	-
22	25TR08	Steering cylinder 2 1/2" x 8"	-	-	-	-	1
23	Std.	Fitting 90° 9405 x 6 x 6	12	7	2	-	2
24	Std.	Fitting 90° 9405 x 6 x 8	2	-	-	-	-
25	30TR04	Cric cylinder 3" x 4"	1	-	-	-	-
26	Std.	Fitting 90° 9515 x 10 x 6	2	-	-	-	-
27	32243	Pusher motor	1	-	-	-	-
28	190-00881	Hose 3/8" x 210" lg + 2 fittings 6U106	-	-	-	-	2
29	190-00851	Hose 1/2" x 163" lg + 2 fittings 8U108	1	-	-	-	-
30	190-00871	Hose 3/8" x 176" lg + 2 fittings 6U106	2	-	-	-	-
31	20TR24	U-shaped guide cylinder 2" x 24"	-	-	1	-	-
32	190-01041	Hose 3/8" x 191" lg + 2 fittings 6U106	2	-	-	-	-
33	190-01021	Hose 3/8" x 167" lg + 2 fittings 6U106	2	-	-	-	-
35	190-01001	Hose 3/8" x 45" lg + 2 fittings 6U106	1	-	-	-	-

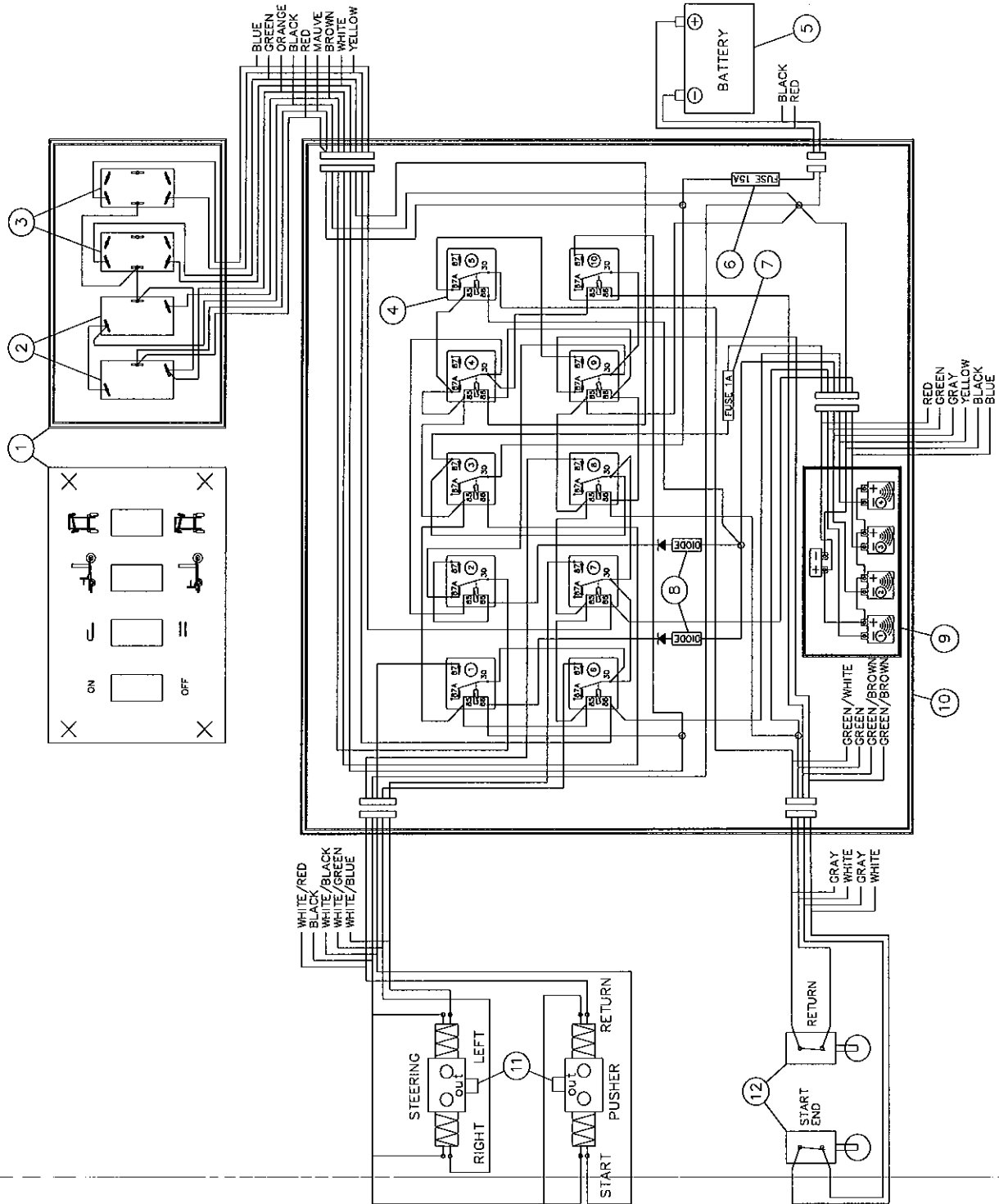


HYDRAULIC SYSTEM (cont'd)

REF.	PART #	DESCRIPTION	QTY				
			BASE P-6400	OPT. P-6405	OPT. P-6415	OPT. P-6425	OPT. P-6435
36	190-01011	Hose 3/8" x 34 1/2" lg + 2 fittings 6U106	1	-	-	-	-
37	190-01071	Hose 3/8" x 158" lg + 2 fittings 6U106	1	-	-	-	-
38	190-01081	Hose 3/8" x 170" lg + 2 fittings 6U106	1	-	-	-	-
39	190-01051	Hose 3/8" x 40" lg + 2 fittings 6U106	1	-	-	-	-
40	190-01061	Hose 3/8" x 42" lg + 2 fittings 6U106	1	-	-	-	-
41	190-01101	Hose 3/8" x 101" lg + 2 fittings 6U106	-	-	1	-	-
42	190-01091	Hose 3/8" x 70" lg + 2 fittings 6U106	-	-	1	-	-
43	25E35	Lateral cylinder 2 1/2" x 35" stroke	2	-	-	-	-
44	25TR08	Rear wheels cylinder 2 1/2" x 8" stroke	2	-	-	-	-
45	Std.	Fitting 90° 9515 x 8 x 6	2	-	-	-	2
46	18019	Solenoid valve	1	-	-	-	1
48	190-00861	Hose 1/2" x 26" lg + 2 fittings 8U108	1	-	-	-	-
49	Std.	Fitting 90° 9405 x 8 x 12	1	-	-	-	-
50	32031	Hydraulic oil filter adaptor	1	-	-	-	-
51	32007	Paper filter	1	-	-	-	-
52	190-00911	Hose 3/8" x 108" lg + 2 fittings 6U106	1	-	-	-	-
53	190-00951	Hose 3/8" x 73" lg + 2 fittings 6U106	-	1	-	-	-
54	Std.	"T" 15855 x 6 x 6 x 6	-	1	-	-	-
55	190-00901	Hose 3/8" x 66" lg + 2 fittings 6U106	2	-	-	-	-
56	Std.	"T" C3709 x 6	2	2	-	-	-
57	30H10	Stretcher arm cylinder 1 & 6 3" x 10" stroke	-	2	-	-	-
58	190-00991	Hose 3/8" x 71" lg + 2 fittings 6U106	-	2	-	-	-
60	30H23	Stretcher arm cylinder 2,3,4 & 5 3" x 23" stroke	2	2	-	-	-
61	190-00981	Hose 3/8" x 215" lg + 2 fittings 6U106	-	2	-	-	-
62	190-00961	Hose 3/8" x 19 1/2" lg + 2 fittings 6U106	-	1	-	-	-
63	190-00941	Hose 3/8" x 93" lg + 2 fittings 6U106	-	1	-	-	-
64	Std.	"T" 15856 x 6 x 6 x 6	-	1	-	-	-
65	190-00921	Hose 3/8" x 115" lg + 2 fittings 6U106	1	-	-	-	-
66	Std.	Fitting 45° 9355 x 6 x 8	-	-	-	2	-
67	MG181313	Traction motor	-	-	-	1	-
68	190-01121	Low pressure hose 1" x 126" lg	1	-	-	-	-



ELECTRIC SYSTEM



ELECTRIC SYSTEM (cont'd)

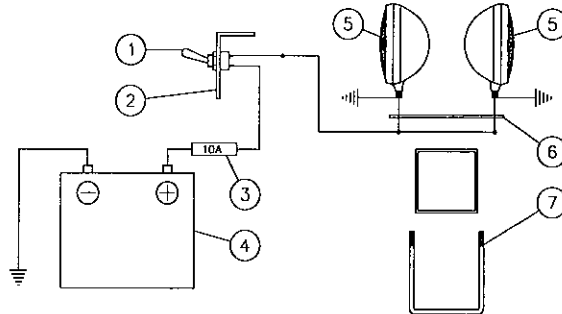
BASE P-6400 = SilaTube without options

OPT. 6435 = Hydraulic steering option

RÉF.	# DE PIÈCE	DESCRIPTION	QTE	
			BASE P-6400	OPT. P-6435
1	32245	Manual control sealed box	1	-
2	32246	Switch on - off	2	-
3	32247	Switch (on) - off - (on)	2	-
4	18015	Relay	10	-
5	Std.	Battery 12V - 540A	1	-
6	32248	Fuse holder 15A	1	-
7	32250	Fuse 1A	1	-
8	32251	Diode	2	-
9	32252	Receiver 4 channel	1	-
10	32253	Sealed box	1	-
11	18019	Solenoid valve	1	1
12	32254	Limit switch	2	-
*NI	32255	Transmitter 4 channel	1	-
*NI	Std.	Battery for transmitter (Alkaline 12V no. A23)	1	-

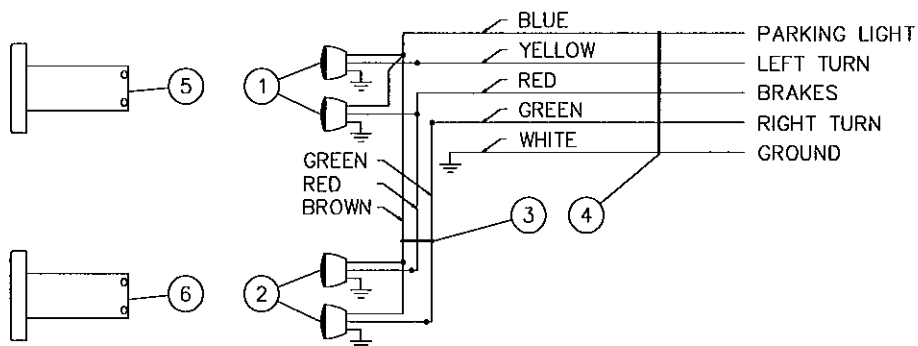
ELECTRIC CIRCUIT

WORKING LIGHTS



REF.	PART #	DESCRIPTION	QTY
1	32237	Switch ON-OFF	1
2	130-04481	Switch support	1
3	Std.	Fuse 10A	1
4	Std.	Battery 12V-540A	1
5	110-04771	Working lights	2
6	140-02901	Working lights retaining plate	1
7	150-00971	"U" bolt 3/8" NC + 2 nylon locknut	1

ROAD LIGHTS










REF.	PART #	DESCRIPTION	QTY
1	32228	Left red flashers with license light	2
2	32229	Right red flashers	2
3	110-03771	3 conductors cable with terminal 258" lg	1
4	110-03591	5 conductors cable with terminal 288" lg	1
5	110-03511	Left support for flasher and license light	1
6	110-03501	Right support for flasher	1






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TORQUE CHART

TORQUE SPECIFICATION TABLE

Thread UNC and UNF		Grade 2 				Grade 5   				Grade 8*   			
Bolt size		Torque				Torque				Torque			
Inches	mm	Pound feet min.	Pound feet max.	Newton meters min.	Newton meters max.	Pound feet min.	Pound feet max.	Newton meters min.	Newton meters max.	Pound feet min.	Pound feet max.	Newton meters min.	Newton meters max.
1/4	6.35	5	6	6.8	8.13	9	11	12.2	14.9	12	15	16.3	30.3
5/16	7.94	10	12	13.6	16.3	17	20.5	23.1	27.8	24	29	32.5	39.3
3/8	9.53	20	23	27.1	31.2	35	42	47.5	57.0	45	54	61.0	73.2
7/16	11.11	30	35	40.7	47.4	54	64	73.2	86.8	70	84	94.9	113.9
1/2	12.70	45	52	61.0	70.5	80	96	108.5	130.2	110	132	149.2	179.0
9/16	14.29	65	75	88.1	101.6	110	132	149.2	179.0	160	192	217.0	260.4
5/8	15.88	95	105	128.7	142.3	150	180	203.4	244.1	220	264	298.3	358.0
3/4	19.05	150	185	203.3	250.7	270	324	366.1	439.3	380	456	515.3	618.3
7/8	22.23	160	200	216.8	271.0	400	480	542.4	650.9	600	720	813.6	976.3
1	25.40	250	300	338.8	406.5	580	696	786.5	943.8	900	1080	1220.4	1464.5
1 1/8	25.58	-	-	-	-	800	880	1084.8	1193.3	1280	1440	1735.7	1952.6
1 1/4	31.75	-	-	-	-	1120	1240	1518.7	1681.4	1820	2000	2467.9	2712.0
1 3/8	34.93	-	-	-	-	1460	1680	1979.8	2278.1	2380	2720	3227.3	3688.3
1 1/2	38.10	-	-	-	-	1940	2200	2630.6	2983.2	3160	3560	4285.0	4827.4

* Thick nuts must be used with grade 8 bolts.

Size of screw	Thread	Pitch (mm)	Grade 4T  				Grade 7T 				Grade 8T  			
			Torque				Torque				Torque			
			Pound feet min.	Pound feet max.	Newton meters min.	Newton meters max.	Pound feet min.	Pound feet max.	Newton meters min.	Newton meters max.	Pound feet min.	Pound feet max.	Newton meters min.	Newton meters max.
M6	UNC	1.00	3.6	5.8	4.9	7.9	5.8	9.4	7.9	12.7	7.2	10	9.8	13.6
M8	UNC	1.25	7.2	14	9.8	19	17	22	23	29.8	20	26	27.1	35.2
M10	UNC	1.5	20	25	27.1	33.9	34	40	46.1	54.2	38	46	51.5	62.3
M12	UNC	1.75	28	34	37.9	46.1	51	59	69.1	79.9	57	66	77.2	89.4
M14	UNC	2.0	49	56	66.4	75.9	81	93	109.8	126	96	109	130.1	147.7
M16	UNC	2.0	67	77	90.8	104.3	116	130	157.2	176.2	129	145	174.8	196.5
M18	UNC	2.0	88	100	119.2	136	150	168	203.3	227.6	175	194	237.1	262.9
M20	UNC	2.5	108	130	146.3	176.2	186	205	252	277.8	213	249	288.6	337.4
M8	UNF	1.0	12	17	16.3	23	19	27	25.7	36.6	22	31	29.8	42
M10	UNF	1.25	20	29	27.1	39.3	35	47	47.4	63.7	40	52	54.2	70.5
M12	UNF	1.25	31	41	42	55.6	56	68	75.9	92.1	62	75	84	101.6
M14	UNF	1.5	52	64	70.5	86.7	90	106	122	143.6	107	124	145	168
M16	UNF	1.5	69	83	93.5	112.5	120	138	162.6	187	140	158	189.7	214.1
M18	UNF	1.5	100	117	136	158.5	177	199	239.8	269.6	202	231	273.7	313
M20	UNF	1.5	132	150	178.9	203.3	206	242	279.1	327.9	246	289	333.3	391.6

Use the above torques when special torque is not given.

NOTE: These values apply to fasteners as received from supplier, dry, or when lubricated with normal engine oil. They do not apply if extreme pressure lubricants are used.

WARRANTY

PRONOVOST warrants this product to the initial purchaser for the period of one year from the date of purchase against defects in materials and workmanship.

We will replace or repair defective parts free of charge if they are returned to our plant in St-Tite, Quebec, Canada.

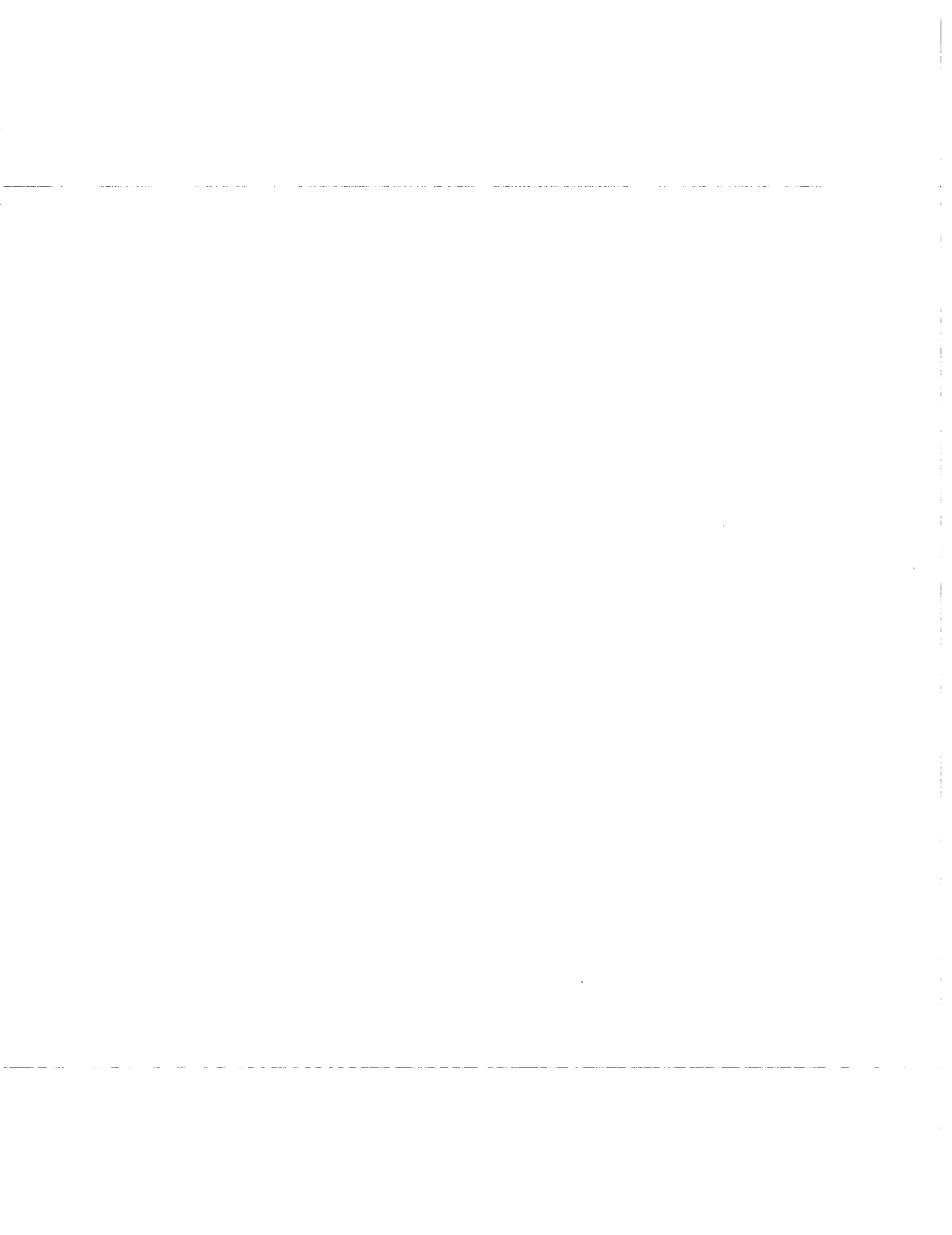
Transportation charges are the responsibility of the customer. This warranty is not transferable.

Tires and gasoline engine are covered by the manufacturers of these items.

All PRONOVOST spare parts purchased are covered by a three (3) month warranty.

This warranty becomes void and nul if the equipment is modified, breaks down as result of an accident, if not operated according to manufacturer's recommendations, damaged by negligence or if maintenance has not been carried out as specified.

Our obligation is limited to the replacement or repair of the defective part. PRONOVOST accepts no responsibility for direct or indirect consequential damages of any kind.



Ce manuel est aussi disponible en français.
Veuillez téléphoner.



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