

**TANCO AUTOWRAP
MODEL 2010 SERIES
OPERATORS HANDBOOK
AND
PARTS LIST
WD91-1A-M0400**

GENERAL SAFETY RECOMMENDATIONS

Before operating the machine, always ensure that the tractor and machine meet with work safety and road traffic regulations.

BASIC PRINCIPLES

- 1 In addition to the recommendations given in this manual, legislation on work safety and accident prevention must also be respected.
- 2 Advice is indicated on the machine, specifying safety recommendations in order to prevent accidents.
- 3 Before travelling on public roads, the operator must ensure that the machine conforms to road traffic regulations.
- 4 Before starting work, the operator must be familiar with all machine controls, handling devices and their functions. once at work, it is too late to do this!
- 5 Do not wear loose clothing which could become caught up in moving elements.
- 6 The tractor should be equipped with a safety cab.
- 7 Before starting up the machine and beginning work, check the surrounding area (beware of children) . make sure there is sufficient visibility. Keep all people and animals away from the danger zone of the machine (risk of projection!).
- 8 Carrying people or animals on the machine when working or in transport is strictly forbidden.
- 9 Machine must only be attached to tractor using means provided and in accordance with current safety standards.
- 10 Special care should be taken when attaching or removing the machine from the tractor.
- 11 Before transporting the machine on public roads, ensure that all legally required guards and indicators(lights, reflectors ...) are in place and in good operation.
- 12 All operating controls (cords, cables, rods etc.) must be positioned so that they cannot be set off accidentally, risking accident or damage.
- 13 Before travelling on public roads, put the machine into its transport position as instructed in this operators manual.
- 14 Never leave the tractor seat while the machine is operating.
- 15 Drive speed must be adapted to ground conditions as well as to roads and paths. Always avoid abrupt changes of direction.
- 16 Before operating the machine, ensure that all safety guards are firmly in place and in good condition. If worn or damaged, replace immediately.
- 17 Before operating the machine, check the tightness of all nuts and bolts, particularly on fixing elements (blades, tines, knives, spades etc.,)
- 18 Keep clear of the machine operating area.
- 19 **WARNING!** Danger of crushing and shearing can exist when components are operated by hydraulic or pneumatic controls.
- 20 Before leaving the tractor or before adjusting, maintaining or repairing the machine, turn off the engine, remove the ignition key and wait until all moving parts have come to a complete stop.

- 21: Do not stand between the tractor and the machine unless the hand brake is tight and/or stops have been placed under the wheels.
- 22: Before any adjustments, maintenance or repairs are carried out, ensure that the machine cannot be started up accidentally.

ADDITIONAL RECOMMENDATIONS FOR LINKAGE MOUNTED MACHINES

- 1: Before attaching the machine, ensure that the front tractor axle is sufficiently ballasted. Ballast is to be placed on the supports provided in accordance with instructions of the tractor manufacturer.
- 2: Do not exceed the maximum axle load or the overall transport weight prescribed by the tractor manufacturer.
- 3: Precision steering, tractor adherence, road holding and efficient braking are influenced by the type of implement, weight, ballast of front axle, ground or road conditions. It is therefore of utmost importance to be cautious in every given situation.
- 4: Be particularly cautious when turning corners, paying attention to machine overhang, length, height and weight.

SAFETY RECOMMENDATIONS FOR ATTACHING IMPLEMENTS TO TRACTOR

- 1: When attaching or removing the machine from the tractor, position hydraulic lift control lever in such a way that it cannot be set off accidentally.
- 2: When attaching the machine to the tractor hydraulic linkage, ensure that diameter of the link pins corresponds to the diameter of the ball joints.
- 3: **WARNING!** Danger of crushing and shearing can exist in the lifting zone of the tractor hydraulic linkage!
- 4: Do not stand between the tractor and the machine when operating the outer lever of the lift mechanism.
- 5: In transport, the machine lift mechanism should be stabilized by tractor tie rods to avoid floatation and side shifting.
- 6: When transporting the machine, lock the hydraulic lift control lever in place so that it cannot be lowered accidentally.

HYDRAULIC SYSTEM

- 1: **WARNING:** Hydraulic system is under pressure.
- 2: When fitting hydraulic motors or cylinders, ensure that connections have been made correctly, as per manufacturers instructions.
- 3: Before connecting hoses to the tractor hydraulics, ensure that tractor and machine circuits are not under pressure.
- 4: It is strongly recommended that the operator marks the hydraulic connections between tractor and machine to avoid making a wrong connection.
WARNING: Functions could be reversed (for example: lift/lower) .
- 5: Check hydraulic hoses regularly! Worn or damaged hoses must be replaced immediately. Replacement parts must be in accordance with the manufacturers recommendations concerning specifications and quality.
- 6: Should a leak be found, take all necessary precautions to avoid accidents.
- 7: Any liquid under pressure (particularly oil from hydraulics) can penetrate the skin and cause severe injury. If injured, see a doctor immediately, there could be a danger of infection.
- 8: Before any adjustments, maintenance or repairs are carried out, lower the machine, depressurize the circuit, turn off the engine and remove the ignition key.

MAINTENANCE

- 1: Before checking for any machine malfunction and before adjusting, maintaining or repairing the machine turn off engine and remove ignition key.
- 2: Check tightness of nuts and bolts regularly. Retighten if necessary.
- 3: If the machine is raised, prop it up in a stable position before carrying out any maintenance work.
- 4: When replacing a working part, wear protection gloves and use only standardized tools.
- 5: It is forbidden to discard any oil, grease or filters. These must be given to waste disposal organisations to protect the environment.
- 6: Disconnect power source before any work is done to the electric system.
- 7: Check safety guards regularly, particularly those that are subject to wear. Replace immediately if damaged.
- 8: Spare parts used must be in accordance with specifications and standards as defined by the manufacturer. Use only genuine TANCO parts.
- 9: Before any electric welding is carried out on tractor or attached machine, disconnect generator and battery terminals.
- 10: Repairs on elements under pressure or tension (springs, accumulators etc-) must only be carried out by competent persons with standardized equipment.

SPECIAL SAFETY INSTRUCTIONS

1. Stop engine of tractor before working on machine.
2. Put a suitable prop under raised platform before working in this area.
3. Always raise Lift Arm and fit safety prop before transporting machine on public roads.
4. Lift Arms should always be lowered before operating turntable.
5. Ensure platform rollers are parallel to Lift Arm before arm is raised.
6. On Autowrap models fitted with hydraulic bale ramp it is essential that the hydraulic hose is not disconnected from the hydraulic cylinder or hydraulic accumulator. This system is charged under pressure. Also, do not attempt to open the hydraulic accumulator as this is a pressurised unit.

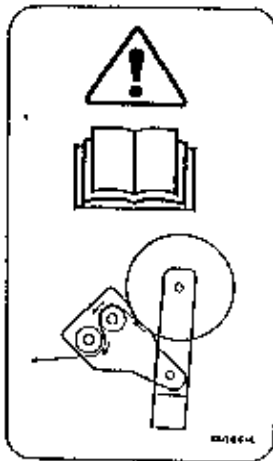
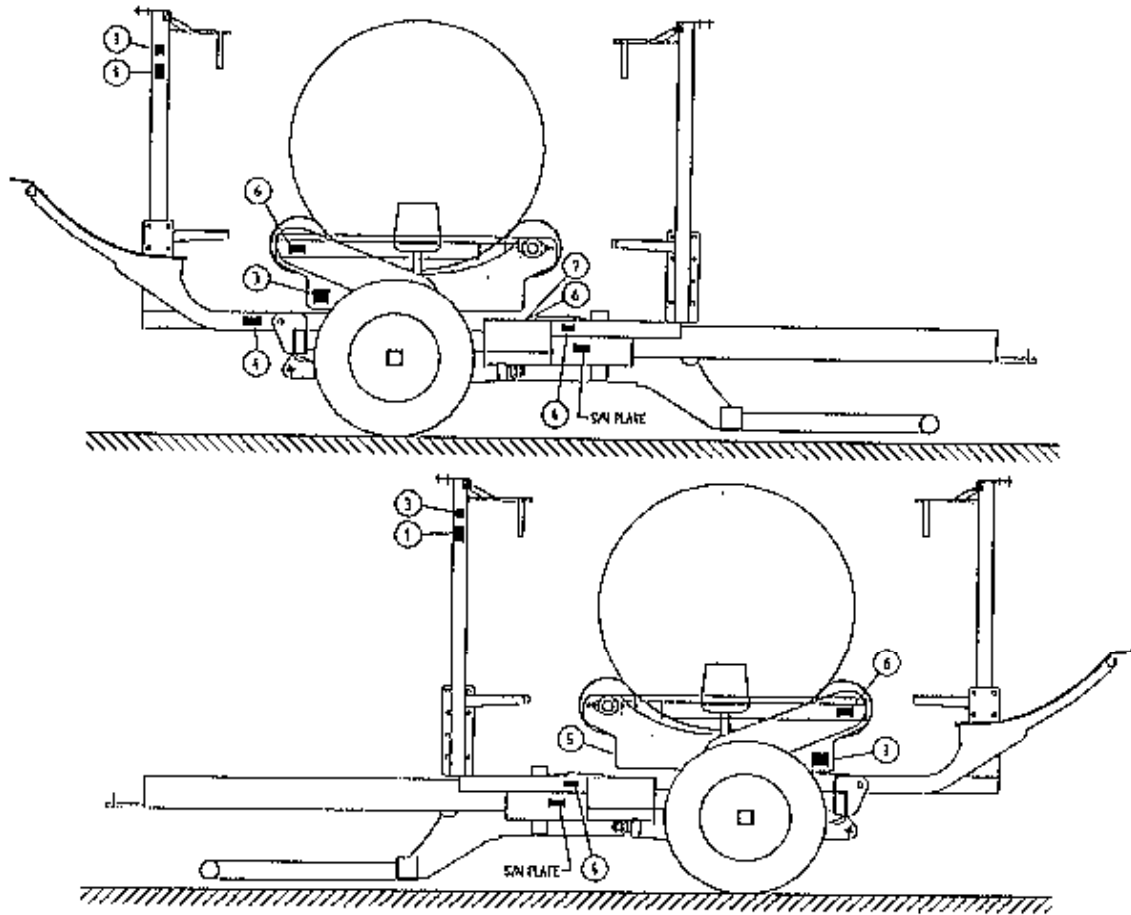
OPERATING SAFETY INSTRUCTIONS

1. Operators should have their hands on the controls at all times when machine is in use.
2. Autowrap control unit and level controls must remain in the tractor cab at all times. The operator must at no time leave the tractor cab when the machine is in motion.
3. Keep onlookers clear of machine at all times. Danger zone is 5 metres.
4. Beware of rotating turntable and all moving parts.
5. If not operated correctly the bale could fly off the turntable. The end support rollers must always be fitted. Do not exceed recommended turntable speed of 30 r.p.m. Mis-shaped bales combined with excessive turntable speeds can be dangerous.
6. Care must be taken when tipping bales from machine on sloping ground and during subsequent handling to ensure that they do not roll, thus causing hazard.

THINK OF YOUR PERSONAL SAFETY AND THAT OF OTHERS AT ALL TIMES.

SAFETY DECALS

The following safety decals have been placed on your machine in the areas indicated. They are intended for your personal safety and for the safety of the people working with you. With this manual walk around your machine and note the content and location of these warning signs. Review these decals and operating instructions in the manual with your machine operator. Ensure that these decals are always legible. If they are not replace them.



1. READ OPERATORS MANUAL ON DISPENSER



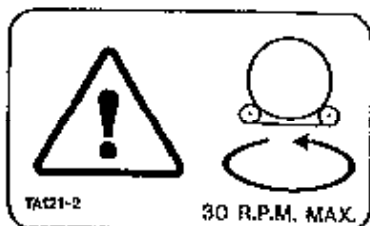
2. WARNING: SHARP BLADE



3. DANGER STAND CLEAR



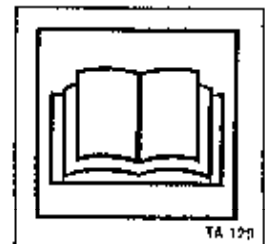
4. ENSURE THAT NUTS ARE KEPT TIGHT



5. DO NOT EXCEED TURNTABLE SPEED OF 30 R.P.M.



6. READ OPERATORS MANUAL AND SAFETY INSTRUCTIONS



7. READ INSTRUCTION MANUAL

TECHNICAL SPECIFICATIONS

2010 INLINE Model Trailed

Dimensions

Total length	490cm
Width	260cm
Height to top of side rollers	122cm
Height to top of lift arm	208cm

Weight

With end tip ramp	2100kgs
Without end tip ramp	1960kgs

Wheels

Size	31x15.50-15
Pressure	42 P.S.i.

Lift arm capacity - Axle extended normally	750kgs
" " " - Axle extended fully	1000kgs

Speed of turntable	30 rev/min*
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Min oil flow required	30 - 40 ltr/min
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Attachment to tractor	Tractor Hitch
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Max bale dia	1.30 M
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Max bale width	1.25 m / 4 ft
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Film (Width of Roll)	750mm
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The speed of rotation can be varied to suit various conditions but on no account should it exceed 30 r.p.m. (Speed in excess of 30 r.p.m. will void warranty).

PRE DELIVERY INSTRUCTIONS

IMPORTANT: DO NOT ATTEMPT TO OPERATE UNTIL THE FOLLOWING INSTRUCTIONS ARE PERFORMED OTHERWISE SERIOUS DAMAGE COULD BE CAUSED

1. MACHINE ASSEMBLY

For ease of transportation some items are removed from their positions and stored elsewhere on the machine. The control box, colour TV monitor, camera, film dispensers are stored under the bale belt. Also stored under belt on remote control machines are the infra red receiver and sender units and warning beacon. One film mast is attached to the front of the machine, the other is attached to the rear film mast mount which is first attached to the rear of the chassis. On round bale machines only, the plastic end rollers are mounted on temporary brackets beside the bale belt. Road wheels, support wheel and support wheel arm, bale lift arm and bale ramp are usually transported separately. Remove the above items and assemble as detailed in parts list section of this manual taking particular note of the following points.

(i) ROAD WHEELS

Attach road wheels ensuring that nuts are tight and tyre pressure is 50 P.S.i.

(ii) DRAW BAR ARM

Support the front of the chassis and swing out the draw bar arm. Attach the ram in place and secure with pin provided. With parking jack attached vertical, wind down jack to support front of machine. Grease pivot pins.

(iii) BALE LIFT ARM & SUPPORT WHEEL

Assemble bale lift arm and attach to mounting points on front of main chassis use the parking jack to rise or lower front of chassis as required. The long pin also secures the support wheel arm. Attach hydraulic rams to lift arm and support wheel. Grease pivot pins.

(iv) DISPENSER MASTS

Lift forward dispenser mast and attach with 'u' bolts provided, to front of machine. Fit rear dispenser mounting frame to rear of the chassis. Fit camera and camera mount to top of dispenser mast and attach with 'u' bolts provided. Attach the film roll sensors to cover taking care that they do not strike the rotating magnet. The film mast height is adjustable. Its height is dependant on bale size and type and is set in the field. It should be set so that centre line of film is in line with centre of bale.

See Fig. 1

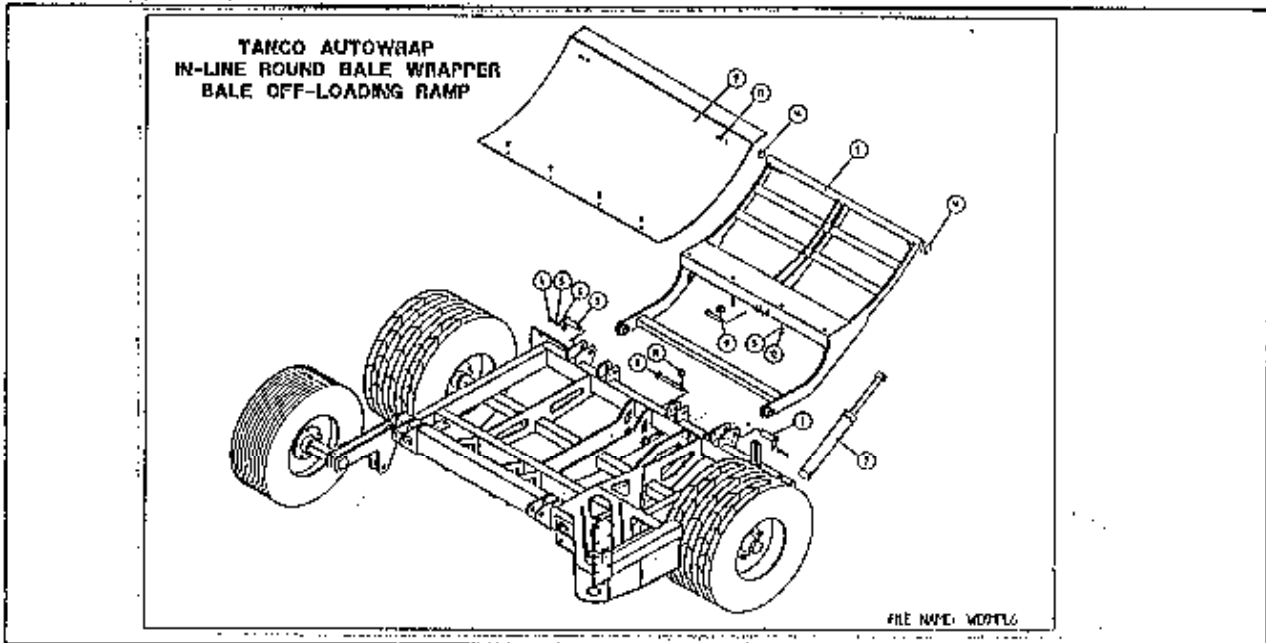
(v) PLASTIC END ROLLERS

Bolt the plastic end rollers into position on each side of the turntable.

(vi) BALE RAMP

Attach bale ramp to rear of chassis. Note. An end tip ramp is available as an optional extra see relevant page for fitting instructions.

SEE INSTRUCTION BELOW FOR FITTING HYDRAULIC BALE RAMP.



INSTRUCTIONS FOR FITTING HYDRAULIC BALE RAMP

1. Fit bale ramp and secure with pins as supplied
2. Fit hydraulic ram bottom end to mounting on chassis and top end to bale ramp with pins supplied.

Setting of regulating tap depends on weight of the wrapped bale, This tap controls the rate at which the bale descends to the ground and should be adjusted so that the bale is lowered gently to the ground. The rate at which the ramp ascends back into its normal position is factory set.

(vii) Shear Bolt

There is one shear bolt fitted to sprocket assembly on drive roller see fig. 5. If the bolt shears, remove the broken bolt re-align holes and fit a replacement shear bolt, 8mm dia x 20m long, Din 8.8

NOTE: If the shear bolt is replaced with other than specified above all warranty is null and void.

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CHECKS TO BE PERFORMED

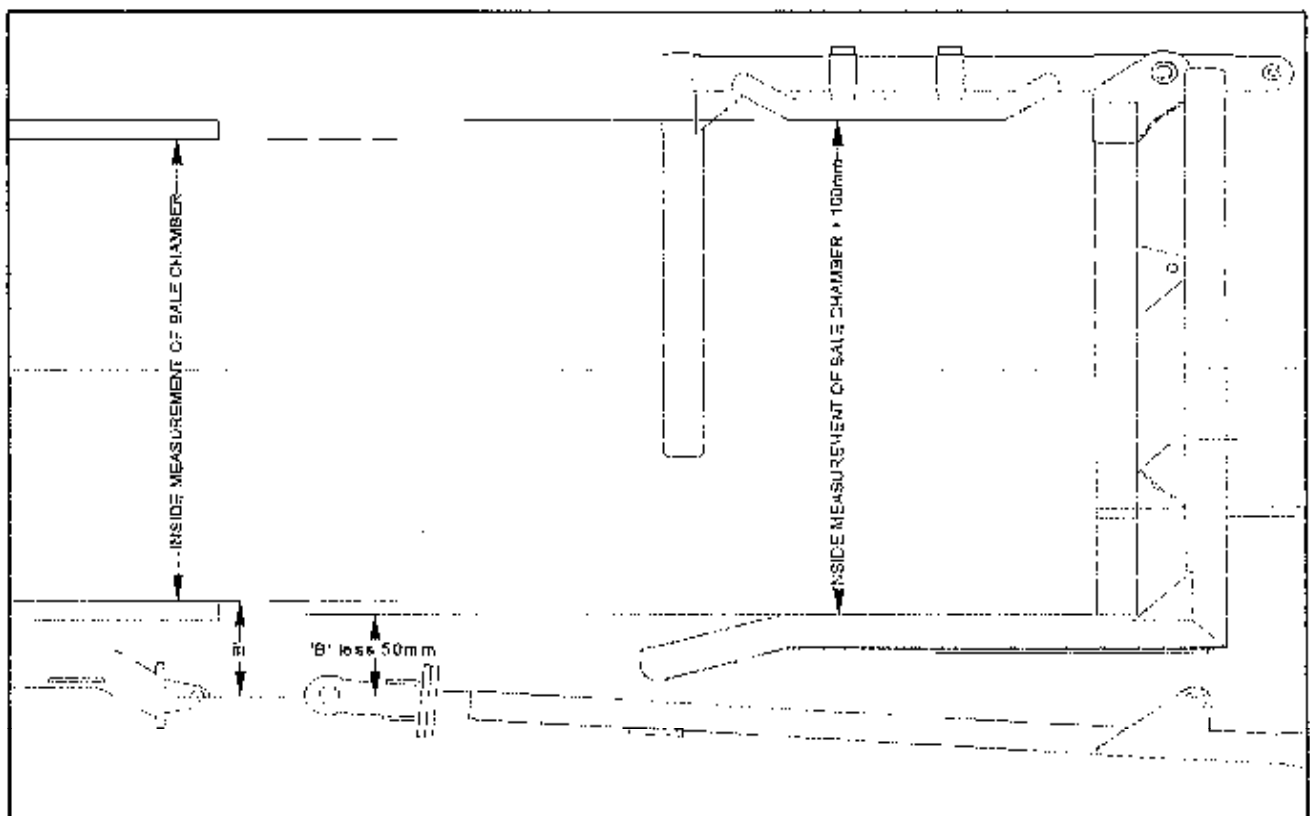
1. Check that all bolts and nuts are tight.
2. That all lubrication points are greased.
3. Check that all guards are in place.
4. Check all operating and safety stickers are in place.

SETTING UP FOR INLINER MODE.

1. **Warning: consult your baler manual first before carrying out this operation.** Open the baler door and with safety arms and/or locks engaged. Measure the internal width of the bale chamber. Note this measurement down here = 'A'
 Now measure the distance from the inside of the bale chamber to the centre of the hitch eye, write this measurement down here..... = 'B'

2. Connect feed and return hoses from bale wrapper to their respective quick release connections on the Tanco hitch kit fitted on the baler. Push the electrical plug into the socket provided. **Do not** connect the other two 3/8" hoses at this stage. With liftarm grab arm closed and shutoff tap closed set the bale stop so that the distance from the bale stop to the opposite arm is the width of the bale chamber 'A' plus 100mm. See fig x below. This is to allow sufficient clearance for the emerging bale. Note that bales expand on release from the baler.

3. The following operation should be carried out on a flat surface. Set the hitch arm so that there is sufficient clearance between baler and the wrapper lift arm while turning. Using a straight edge (a length of timber 50mm square ideal) set the hitch arm so that the measurement between the lift arm as shown below and the wrapper hitch eye is equal to measurement 'B' less 50mm..... Now close the shut off tap on the draw bar ram. Also connect the other two 3/8" hoses from the draw bar arm ram to their respective connections on the Tanco hitch kit fitted on the baler. When in the inline mode the door of the baler is operated via these connections. Ensure that the shutoff tap on the support wheel is in the open position. Hitch up machine to Tanco hitch kit fitted on the baler



SETTING UP FOR OFFLINER MODE.

1. Connect feed and return hoses from bale wrapper to their respective quick release connections on the tractor. Push the electrical plug into the socket provided. **Do not connect** the other two 3/8" hoses, as these are for inline mode only. Open the shutoff tap on the bale grab arm and ensure that the shutoff tap on the support wheel is in the open position. Also check that the shutoff tap on the drawbar arm is open.
2. The machine can now be steered both right or left while in the offset position in order to align itself with the bale to be loaded. This feature eliminates the need to reverse should you find yourself misaligned with the bale. It is also useful when negotiating tight exit and entry to fields with lift arm in the up position.
3. Set the bale stop so that the bale will be gently squeezed by the grab arm and lifted onto the turntable.
4. While in the offset mode and the machine is wrapping a bale, you can travel to the next bale, grab it and lift it off the ground. The lift arm will only lift so far while the machine is wrapping in the auto mode, this is to avoid collision with the rotating turntable. Load the 2nd bale as soon as the first bale is lifted off.
5. It is the responsibility of the operator to operate the machine in a proper and careful and sensible manner, thus avoiding collisions between the lift arm and the draw bar arm.

WARNING: LIFT ARM

1. The Lift Arm on this machine is designed to pick up and deposit bales onto the turntable prior to wrapping. It is not intended to be used for transporting bales over distances or for use as a stabiliser whilst wrapping.
2. Therefore any use of the lift arm outside its primary function will be deemed to be abuse and will void all warranty.
3. Before raising loading arm ensure that both the turntable and the draw bar are in correct position for loading bales so that loading arm will not foul it.
4. It is important that any observers are kept a safe distance from the machine while it is being operated. **Warning:** This is extremely important while the lift arm is being lowered or raised, as the grab arm swings outwards.

Failure to observe these warnings will lead to failure of the turntable centre bearing and/or which will not be covered by warranty.

MODE OF OPERATION.

Inliner Mode: with switch in "Auto" Position.

1. First ensure that the camera is set to give the operator a clear view of the bale emerging from the baler.
2. Ensure turntable is in correct position to accept bale and that film is gripped by both "Cut and Starts".
3. Lower bale lift arm into loading position and ensure the grab arm is closed and its shutoff tap is in the closed position and that the shutoff tap on support wheel is in the open position
4. After opening baler door allow the bale to roll gently onto the lift arm. Observe this in the colour tv monitor.
5. The machine can be set to auto start on closing the baler door
6. On the second rotation of the wrap cycle the "Cut and Start" will open automatically to release the film. On the last revolution the turntable will slow down and the 'cut and starts' will open and drive on to grip and cut the film end in readiness for the next bale.
7. When in a safe position to do so, press the "Tip Up" button, the turntable will tip upwards and the bale will be transferred to the off loading ramp.
8. The tip off sequence is automatic and once the turntable lowers it will be ready to receive the next bale.

Offliner Mode:

1. Check that the shut off taps on both the lift arm grab arm and the support wheel are in the open position. Also check that the shutoff tap on the drawbar arm is open.
2. The machine should be swung out fully.
3. The machine can be nudged both right or left while in the offset position in order to align itself with the bale to be loaded.
4. The bale will be squeezed and lifted onto the turntable, (see section on lift arm settings) The wrapping continues as 6 to 6 above.

GUARANTEE

Subject as hereunder provided, the Sellers undertake to correct either by repair or at their election by replacement any defect of material or workmanship which occurs in any of its goods within twelve months after delivery of such goods to first user, with the exception of contractors or commercial users when warranty period is six months.

In respect of Autowraps the warranty period is for 12 months or 8000 bales, whichever occurs first. In respect of Airways, time breakage will be assessed on an individual basis in every case.

The term goods when used in this document means the article or articles described in Invoice as sold by the Sellers but does not include equipment or proprietary parts or accessories not manufactured by the Sellers. The Sellers, however, undertake to pass on so far as they legally can to the first user the benefit of any warranty given to the Sellers by the suppliers of such equipment, parts or accessories. This understanding shall not apply to:-

- (a) Any goods which have been sold by the first user.
- (b) Any goods which have been injured by unfair wear and tear, neglect or improper use.
- (c) Any goods the identification marks of which have been altered or removed.
- (d) Any goods which have not received the basic normal maintenance such as tightening of bolts, nuts, tines, hose connections and fittings and normal lubrication with the recommended lubricant.
- (e) The use of any product on tractors exceeding the recommended horsepower.
- (f) Any goods which have been altered or repaired other than on instruction or with the written approval of the Seller or to which any part not manufactured or having written approval by the Sellers have been fixed.
- (g) Any second-hand goods or part thereof.

Any allegedly defective part or parts returned to the Sellers must be sent carriage paid. No claim for repair or replacement will be entertained unless upon discovery of the alleged defect written notification is sent to the Sellers giving, at the same time, the name of the Buyer from whom the goods were purchased and the date of purchase, together with full details of the alleged defect and the circumstances involved, also the serial number of the machine etc.

The Sellers shall be under no liability to their Buyers and first or subsequent users of their goods or to any other person or persons for loss or damages howsoever arising in respect of either personal injuries or for arising out of, or in any way connected with or arising from the manufacturers sale, handling, repair, maintenance, replacement or use of its goods or the failure or malfunction of any of its goods.

Representation and/or warranties made by any person (including Buyers and employees and other representatives of the Seller) which are inconsistent or conflicting with these conditions are not binding upon the Sellers unless given in writing and signed by a Director of the Sellers.

CLAIMS.

If you wish to make a claim under guarantee:

- 1: Immediately, stop using the machine.
- 2: List the details of the machine, its serial number and the part number of the damaged part.
- 3: Consult with your Tanco dealer (supplier) and have him forward your claim and the damaged item to Tanco.

FILM OVERLAP SYSTEM.

The Autowrap is fitted as standard with the 2 x 2 x 50% film overlap system. The machine is designed so the correct number of film layers are applied to the bale after a specific number of revolutions of the turntable. The number of revolutions required to wrap a bale depends on width of film being used and bale size.

For silage bales we recommend the application of a minimum of four layers of film.








BALE SIZE	WIDTH OF FILM ROLL	BALE INDICATOR SETTING (REVS)
120cm X 120cm	750mm	20

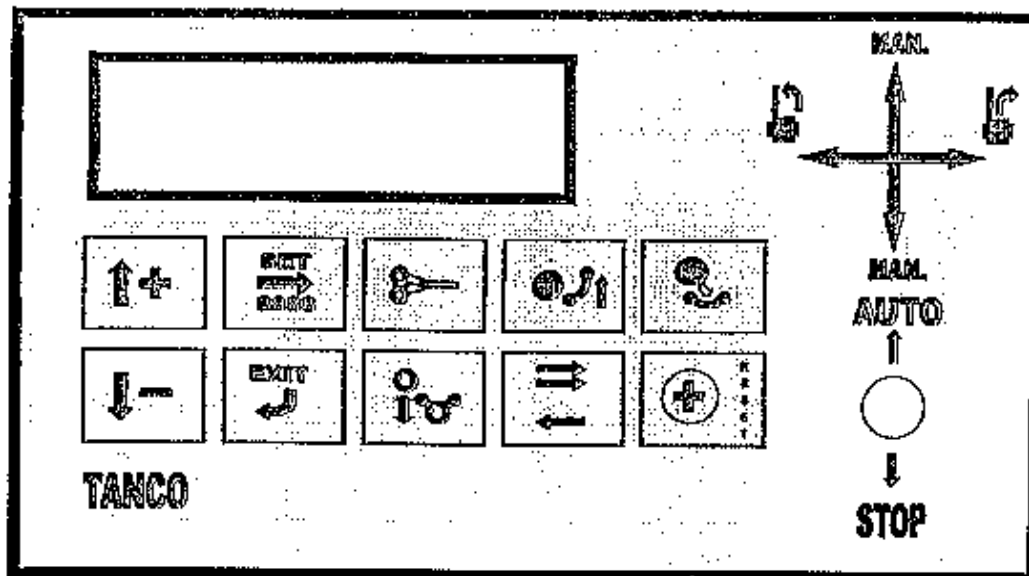
The controller is programmed for the machine to operate with two rolls of film. The controller counts each turntable revolution as two pulses. Therefore when the controller is set for 20 revolutions the turntable will rotate for 10 revolutions to complete wrap cycle.

IMPORTANT

The above recommendations are only offered as a guide to correct wrapping of silage bales and the manufacturer accepts no responsibility for variations that may arise and the consequence of same. They are based upon turntable speed of up to 30 r.p.m., and a film width of 600mm applied to end of Bale when using 750mm wide film roll.

It is the responsibility of the operator to ensure the correct number of wraps are applied, as variances can occur with fluctuations in speed of rotation, film quality and tensioning, shape and density of bale, field conditions and crop type.





	<p>Is used to reset or cancel all registered turntable revolutions applied to the bale in a cycle.</p> <p>Additional purpose. Additional turntable revolutions. During the machine operation each push on this button will increase the film programme number by one layer for the cycle in question. After a completed cycle a push on this switch followed by a AUTO START command will always cause the wrapping cycle to restart and proceed with a minimum of revolutions equal to the film release number. If the system has been reset and a bale is positioned on the table but not presented by the BALE ON SYMBOL (0) symbol on the top right hand corner of the display, pressing this button for 6 seconds will call up this symbol and the controller will now recognize that a bale is placed on the machine and the cycle may now be started.</p>
	<p>Function select button, press to select. The display will write the manual function chosen. Activates the film cut/hold devices for manual operation. ("MAN" joystick)</p>
	<p>Function select button, press to select. The display will write the manual function chosen. Activates the LOADARM for manual operation. The LOADARM function will remain active while the ("MAN" joystick) is activated.</p>
	<p>Function select button, press to select. The display will indicate the manual function chosen.</p> <p>Manual turntable forward and reverse. In forward, the speed will commence in slow and then accelerate to maximum. When the manual wrapping is completed the speed will return to slow after which the turntable will stop.</p> <p>The wrapping will only remain while the joystick is activated. Manual turntable reverse. The speed will remain slow.</p>
	<p>Function select button, press to select. The display will indicate the manual function chosen. Tip turntable from horizontal to offload and back to horizontal.</p>
	<p>Function select button, press to select. The display will indicate the manual function chosen. Select manual operation of the lowering or lifting of the supporting wheel. (Not a separate manual standard function.)</p>
<p>AUTO</p>	<p>The AUTO switch will initiate the AUTOMATIC cycle. I may also be used to shorten the wrapping cycle. Example: The wrapping cycle is set to 30 turntable revolutions. The operator wishes to stop the cycle and offload the bale using only the automatic facilities of the system as the machine is positioned behind the Baler and therefore not practically operated in the manual mode. Activating the START switch during an automatic cycle will cause the controller to consider the bale as completed and the machine will position the turntable when ready. The display will now state that it is ready for offloading. When the turntable is positioned yet an AUTO command will offload the bale.</p>
<p>STOP</p>	<p>Will stop the cycle at any point in the cycle.</p>
	<p>Tailgate open / Hitch operation manual. These are priority functions, meaning that there is permanent access to these on the joystick without pre-select.</p>



The TANCO wrap control system is developed with the intention of assisting the operator in maintaining full control of the machine irrespective of the of machine configuration, inline or offline mode. The system provides for detailed instruction and messages via the 40 character alphanumeric display, enabling the operator to monitor the operation of the wrap machine at any instant even when trailed behind a baler.

The system is equipped with various test program, warning messages, error messages and instructions which makes the system superior in terms of facilities, service and operation.

THE DISPLAY UNIT AND PANEL FUNCTIONS

	<p>The menu scroll up/down key. Is used to search for the display, test program or set up facilities the operator wishes to view. It is also used for increasing number values such as required number of turntable revolutions and other machine parameters when in the SET mode.</p>
	<p>The menu scroll up/down key. Is used to search for the display, test program or set up facilities the operator wishes to view. It is also used for reducing number values such as required number of turntable revolutions and other machine parameters when in the SET mode.</p>
	<p>The SET key is used to enter the programming mode and to reset values in for example the bale counters.</p>
	<p>When in "SET" mode, this is used to exit the "SET" mode or to return to a previous programming level.</p>

LANGUAGE : ENGLISH (Press SET to enter)	↑+ ↓-	The system contains a number of languages for all SETUP parameters, messages and operator instructions. The language required for the display messages may be chosen (if available) via this menu.
HARDWARE TEST Press set to enter.	↑+ ↓-	The hardware test program is a tool facility enabling and guides the operator and service people to test and inspect almost all functions, switches and push buttons on the system. It also contains a battery supply voltmeter which automatically will be displayed should the voltage drop below 8 volt during the operation.
SUPPLY VOLTAGE:xx.xV LAST DROP: xx.xV	↑+ ↓-	Displays the instantaneous battery supply loaded and off load. The last drop is the lowest voltage supply measured during current surge when activating the hydraulics.
TEST DIGITAL INPUTS STATUS:0000.0000 (8)	↑+ ↓-	Enables the testing of each sensor or sensor input.
TEST KEYS PRESSED: 00000.00000	↑+ ↓-	Enables the testing of each push button on the control panel.
TEST SWITCHES ACTI- VATED:0000.00	↑+ ↓-	Enables the testing of each function switch on the control panel
TEST RELAYS, 0=OFF 00000000.0000000 (15)	↑+ ↓-	Enables the testing of each relay output function for the hydraulics on the controller
TEST COUNTED PULSES THIS BALE: 0	↑+ ↓-	Enables the control of turntable pulses counted each bale.
TEST. IR REMOTE CONTROL: 00 00 00 00	↑+ ↓-	Enables to test the Ir receiver and transmitter functions.

SETTING UP THE SYSTEM:

All functions are adjusted from the TANCO factory and commonly the only adjustments, which the operator needs to make, is the programmed number of turntable revolutions required or the wrap speed adjustments when required.

TYPICAL OPERATOR PROGRAMMATION. (Standard for all machine models.)

1: Required number of turntable revolutions. (Changing from 20 to 25 Revolutions.)

2: Bale counter selection.

DISPLAY INDICATION	PUSH BUTTON OPERATIONS	DESCRIPTION.
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THE DISPLAY MENUES.

At the operator level, there are a number of menus that enables the operator to perform various tests and adjustments to the machine operation. Should adjustments of parameters that not are accessible to the operator be required, please contact the TANCO dealer or TANCO.

DISPLAY INDICATION	FOR NEXT VIEW	DESCRIPTION.
<p>WRAP CYCLE 15 : 20 0 BALESCOUNTER : 1 324</p> <p>OR IF CYCLE IS COMPLETED WRAP CYCLE 15 : 20 - READY TO OFFLOAD</p> <p>OR IF IS OFFLOADED</p> <p>WRAP CYCLE 15 : 20 - READY TO OPEN TAILGATE</p>	<p>↑+ ↓-</p>	<p>This operative display shows the commonly most needed information. The number 15 indicates the actual number of applied turntable revolutions at this instant. The number 20 is the operator programmed turntable revolution requirement. The number 1 is the bale counter in use and the number 324 is the quantity of bales registered in counter number 1. The "0" (zero) in the top right hand corner means that there is a bale positioned on the table.</p>
<p>ACTIVATE TRANSPORT FUNCTION, PRESS SET</p>	<p>↑+ ↓-</p>	<p>The transport function bypasses the normal safety criteria for the hitch / gate functions. Wrapping is not possible while the function is active</p>
<p>Transport-function Active now</p>	<p>EXIT ↓</p>	<p>To exit transport, depress exit.</p>
<p>ACTIVATE TRANSPORT FUNCTION, PRESS SET</p>	<p>↑+ ↓-</p>	<p>The transport function bypasses the normal safety criteria for the hitch / gate functions. Wrapping is not possible while the function is active</p>
<p>SETUP (INLINER) Press SET to enter.</p>	<p>↑+ ↓-</p>	<p>This is the operator service level. When in this mode the operator is able to engage / disengage the various Sensors. Also variables such as load arm, cutter and tip timer functions may here be set or adjusted.</p>
<p>WELCOME TO SETUP!</p>	<p>↑+ ↓-</p>	<p>Entering the user changeable parameters.</p>
<p>TYPE:INLINER TYPE:OFFLINER</p>		
<p>WAIT FOR START SIGNAL AFTER LOAD: NO</p>	<p>↑+ ↓-</p>	<p>With a NO statement, the system will automatically commence the wrapping cycle upon the reception of the load arm down signal.</p>
<p>WAIT FOR START SIGNAL BEFORE OFFLOAD: YES</p>	<p>↑+ ↓-</p>	<p>With a YES statement the controller will expect an operator command before offloading the bale and state READY TO OFFLOAD in the display.</p>
<p>LOAD ARM UP DURATION: 4,0</p>	<p>↑+ ↓-</p>	<p>The time set for the loading arm to raise from horizontal to vertical position during the loading sequence.</p>
<p>LOAD ARM DOWN AFTER SENSOR DURATION: 0,4</p>	<p>↑+ ↓-</p>	<p>The time set for the loading arm hydraulics to remain active after the actual horizontal signal is received.</p>



Tailgate close / Hitch operation manual. These are priority functions, meaning that there is permanent access to these on the joystick without pre-select.

MODES OF OPERATION

The system is designed so that a STANDBY MODE separates the automatic mode and the manual mode. This means that when operated in the automatic mode, all manual commands are ignored with the exception of AUTO START, STOP and the application of additional turntable revolutions. In other words, all other manual functions are only accessible when in standby mode.

STANDBY MODE.

Standby mode is the waiting state between the Auto and the Manual mode. Standby mode is automatically resumed when:

1. An automatic cycle is completed.
2. Between cycle steps, Example: The wrapping cycle is completed and the system announces that it is ready to offload the bale. *It is here in STANDBY for an operator command* for manual or automatic function. A START command will instruct the machine to advance to the next logical step in the auto cycle, namely the offloading of the bale.
3. Stopping the cycle will at any stage bring the system into standby mode.

MANUAL MODE

Activating one of the manual function keys accesses the manual mode. When first a manual function switch is activated, this function is executed if it is a "legal" operation. If the operator request an illegal function such as offloading a bale while the Turntable not are in the correct position, the system will refuse to perform the operation and state in the display the reason for the refusal, enabling the operator to correct the machine status before the requested function can be made active.

The machine is generally required operated automatically. The controlling system will with its standard factory settings, automatically control the machine with START commands. For every program step, the machine has completed, the machine will stop and await further command from the operator. During a normal automatic cycle the machine will via both the audio alarm and display messages, inform the operator that the wrapping cycle has now been completed and write the display message "READY TO OFFLOAD." At this stage yet a START command will cause the bale to be offloaded.

DISPLAY ERROR MESSAGES.

DISPLAY MESSAGE	MESSAGE EXPLANATION
NO CONNECTION	When the communication between the monitor and the controller is absent.
FILM-PULSES MISSING!	The film break sensor has detected that the film is broken or that a film roller is empty. 1. The film break sensor is defect. 2. The cable network to the sensor is defect.
VOLTAGEDROP TO: xx.xV	The load provided by the hydraulic circuit has caused the battery voltage to drop to a level below the acceptable limit. (8 volt.) 1. The tractor generator may be defect. 2. The tractor engine Rpm may be too low for the generator to charge the battery. 3. The supply cable termination onto the battery may be poor or dirty. Check terminations and go to the hardware test programme to inspect the battery supply voltage in unloaded condition and loaded condition.
TABLE TIP TIMEOUT!	Indicates that the table tilt hydraulic function has not been activated on the controller command. A timeout message means that an associated sensor has not received an expected signal within a preset period. 1. The valve may be defect or sticking. 2. The relay output may be defect. 3. The hydraulic connector may have fallen off. 4. The cable may be broken. 5. The hydraulic connector may be defect. Test that the output supply is available on the associated relay terminals, and hydraulic connector.
LOAD ARM TIMEOUT!	As above
NO ROTATE PULSES!	As above
TURNTABLE NOT IN POS.	As above
LOADARM NOT IN POS.	As above
TABLE NOT HORIZONTAL.	As above

TROUBLE SHOOTING USING THE HARDWARE TEST PROGRAMME.

The system **HARDWARE TESTPROGRAMME** is a operator accessible test program which is intended as a self help facility. Combined with the display messages, it makes trouble shooting a less complicated matter. To find the test program:

Press the **MENU - button** until the display shows **HARDWARE TEST**. Press now the **SET button** to gain access and again press the **MENU- button** until the display shows the required test program.

OPERATING INSTRUCTIONS

1. First of all the operator should read the section on the controller and settings therein before using this machine.
2. Fit 2 rolls of film and thread through the Dispensers roller assembly by following the instruction label on the film mast.
3. Set the bale wrap indicator to the correct setting for the size of bale being wrapped and the width of film being used. See Table 1 for list of some recommended settings.
4. Power down Lift Arm.
5. Adjust tractor engine speed to give turntable speed of 16 - 30 r.p.m. **NOTE.** Speeds in excess of 30 r.p.m. will void Warranty.
6. Position turntable with cut and start units facing outwards to sides of machine.
7. Attach film tag end to gripper section of cut and start unit.
8. Locate bale on lift arm, then raise lift arm and gently roll bale onto turntable. Lower arm.
9. Push auto to start wrapping. Film tension is automatically set so that width of film applied to the bale stays at a constant width of 600mm for 750mm wide film roll.
10. Wrapping continues until signal from bale indicator sounds (required number of revolutions has been reached). Then the machine slows to stop and cut & starts will open, the machine continues on and cut & starts close, grip and cut the plastic film. With cut and starts facing outwards to side of machine, the machine stops.
11. Making sure it is safe to do so, tip bale from machine. The bale is then unloaded down the bale ramp
12. The turntable lowers and the machine is now ready to load again.

NOTE: The film end need only be attached at the start of a roll, after that the sequence is automatic.

SERVICE AND MAINTENANCE.

1. All nuts and bolts should be tightened after one hour's use and thereafter regularly.
2. Wheel pressure should be normally kept at 42 psi depending on bale weight and field conditions.
3. Inspect moving parts for wear on daily basis.

4. Lubrication.

Drive chain & sprocket	Grease every 24 hours.
Main rollers	Grease every 24 hours.
Hinge pins on Lift Arm	Grease every 24 hours.
Hinge pins on main tip frame	Grease every 24 hours.
Hydraulic rams	Grease every 24 hours.
Film spool assembly	Grease every 24 hours.
Dispenser gearboxes	See 6.
Main slewing ring bearing.	Grease every 4000-5000 bales

5: Adjustments.-

Roller Drive chain:	Adjust after first days work then check/adjust every 50 hours. See Fig. 3
Main Bale Belt:	See belt tracking instructions.

6: Film Dispensers

Apply P.T.F.E. based grease to gears every 2 to 3 months

7: Film Adjustment.

Centre of film roll must be in line with centre of bale and film mast should be vertical.

- 7: The Controller display and audio alarm will now state that the bale is ready for offloading.
- 8: An auto command will here cause the bale to be offloaded.
- 9: The table returns to horizontal and the display shows ready to load bale.
- 10: Cycle restart.

PASSING A BALE THROUGH THE WRAPPER WITHOUT APPLYING FILM.

In those cases where it is required not to wrap all bales, it is possible to make the controller skip the wrapping cycle by bringing the required number of turntable revolutions to zero (0).

CYCLE SEQUENCE:

When a bale is offloaded from the wrapper, the controller states on the display that is now is ready for reloading a new bale and the audio alarm will sound in order to attract the operators attention so that he knows the machine is ready for the next cycle.

- 1: When the operator receives a clear signal from the baler controller that the bale now is ready, the operator stops the tractor and opens the baler tailgate to release the bale. The bale will roll onto the load arm and when the Tailgate sensor signals that the Tailgate is closed, the bale will be loaded onto the table with the loading arm.
- 3: The load arm returns to the down position.
- 4: The Controller display and audio alarm will now state that the bale is ready for offloading.
- 5: An auto command will here cause the bale to be offloaded.
- 6: The table returns to horizontal and the display shows ready to load bale.
- 7: Cycle restart.

A TYPICAL WRAP CYCLE OFFLINE MODE.

When the power has been disconnected from the system and the Turntable is not in loading / offloading position (table turns sensor is not activated), the computer will always turn the table and stop in the loading / offloading position when an AUTO command is given.

When a bale is offloaded from the wrapper and the table has returned to horizontal position, the audio alarm will sound and the display state that it now is ready for loading a new bale, so that the operator knows the machine is ready for the next work cycle.

- 1: When the operator drives the wrapper to the bale for loading.
- 2: The operator activates the AUTO switch and, the bale will be loaded onto the table with the loading arm.
- 3: The load arm returns to the down position.
- 4: The wrapping cycle commences and follows the defined cycle.

FILM RELEASE DURATION: 0,1	↑+ ↓-	The time set for the film release function to remain active in order to release the film properly.
TIP UP DURATION OFF LOAD BALE: 3,0	↑+ ↓-	The time set for the table arm to raise from horizontal to vertical position during the offloading sequence.
SENSOR SETUP Press SET to enter	↑+ ↓-	
FILM BREAK SENSORS INSTALLED: YES	↑+ ↓-	If signals are absent from 1 of the film rollers the system will sound the alarm and on the display announce the reason. If signals from both rollers are missing, the system will stop, sound the alarm and make a statement on the display.
LOAD ARM SENSOR INSTALLED: YES	↑+ ↓-	In the event of a defect sensor
TABLE HORIZONTAL SENSOR INSTALLED: YES	↑+ ↓-	The sensor may be disengaged if defect enabling to work to continue.
LOAD UPON TAILGATE SIGNAL: YES (only applicable for inline configuration)	↑+ EXIT	With a NO statement, the system will automatically commence the wrapping cycle upon the reception of the load arm down signal.
ACTUAL RPM 10 ALARM LIMITS (16-31): 10	↑+ ↓-	Actual Rpm is the speed at which the turntable is rotating at present. Max 30 is the maximum speed the system is programmed to achieve. The number 16 to the right of the number 30, is the operator adjusted speed level which the controller then will maintain.
ACTIVATED: NO FUNCTIONS ACTIVE.	↑+ ↓-	This operative display shows at all times which function the machine operates at present. This feature enables the operator to monitor the stage the machine is at during a cycle. It is also of great assistance should it be necessary to determine which relay outputs should be active for a given function.
BALE COUNTERS Press SET to enter.	↑+ ↓-	The system contains 10 bale counters. When this display is shown, it is possible to inspect the sum of all bale counters. Machine total (the sum of all bales ever made on the machine.) and the quantity of each individual bale counter.
BALES TOTAL : XXXX MACHINE TOTAL: XXXX	↑+ ↓-	Bales total is the complete number of bales wrapped since the last reset this display. Machine total is the number of bales wrapped on the machine.
BALE COUNTER 1: XXXX 2: XXXX 3: XXXX	↑+ ↓-	The system contains 9 sub counters total, 3 on 3 individual displays.
WORKING HOURS: 123 MACHINE TOTAL : 798	↑+ ↓-	Displays the number of working hours of the machine in 1 week, day or other. (Reset able) and the total number of the machine operating hours. (Not a reset able facility.)

WRAP CYCLE 0 : <u>20</u> 0 BALES : 1 324	SET → 0000	To enter programming mode, push and hold this button for 1 second. The highest value in the programme number will now flash, meaning that it may now be changed. As the number is to be changed from 20 to 25 Revolutions the number 2 is not required changed therefore push the " SET" again to make the lowest number value "0" changeable
WRAP CYCLE 0 : <u>20</u> 0 BALES : 1 324	SET → 0000	The lowest value number will now flash, meaning that it may now be changed. Now use the MENU buttons to increase or decrease the value.
WRAP CYCLE 0 : <u>25</u> 0 BALES : 1 324	↑+	Pushing MENU UP will increment the number between 0 and 9. Similarly MENU DOWN will decrement the number between 9 and 0. In this case push MENU UP 5 times to change the number from 0 to 25.
WRAP CYCLE 0 : 25 0 BALES : <u>1</u> 324	EXIT ↓	To exit programming the required turntable revolutions push the EXIT button. The bale counter number (in this case counter number 1) will then flash and the counter number is now changeable. The unit contains 9 individual counters and 1 counter for the sum of bales. The MENU UP or DOWN key is used to change the number. If the same counter is to be used push EXIT again.
WRAP CYCLE 0 : 25 0 BALES : 2 <u>125</u>	↑+ ↓-	It is shown that the counter chosen is counter number 2. This counter contains a quantity of 125 bales, stored in the memory. If it is required to continue the count from this quantity and onwards, push EXIT to return to operative mode, or ZERO the counter on the MENU up or DOWN key and then EXIT to return to operative.
WRAP CYCLE 0 : 25 0 BALES : 2 125	EXIT ↓	Programming mode is exited when no figures on the display are flashing.

A TYPICAL WRAP CYCLE INLINER MODE.

When the power has been disconnected from the system and the Turntable is not in loading / offloading position (table turns sensor is not activated), the computer will always turn the table and stop in the loading / offloading position when an AUTO command is given.

When a bale is offloaded from the wrapper and the table has returned to horizontal position, the audio alarm sound and the display state that it now is ready for loading a new bale, so that the operator knows the machine is ready for the next work cycle.

- 1: When the operator receives a clear signal from the baler controller that the bale now is ready, the operator stops the tractor and open the Tailgate to release the bale.
- 2: The bale will roll onto the load arm and when the Tailgate sensor signals that the Tailgate is closed, the bale will be loaded onto the table with the loading arm.
- 3: The load arm returns to the down position.
- 4: The wrapping cycle commences and follows the defined cycle.
- 5: When the cycle sequence is ending the wrapping speed reduces and stops at a defined point and the film cutters open equally at a defined point.
- 6: The table restarts driving the table into the film and stops in the offloading position. The film cutters now close, cut and hold the film.

- 5: When the cycle sequence is ending the wrapping speed reduces and stops at a defined point and the film cutters open equally at a defined point.
- 6: The table restarts driving the table into the film and stops in the offloading position. The film cutters now close, cut and hold the film.
- 7: The Controller display and audio alarm will now state that the bale is ready for offloading.
- 8: An auto command will here cause the bale to be offloaded.
- 9: The table returns to horizontal and the display shows ready to load bale.
- 10: Cycle restart.

IMPORTANT! The Hitch sensor must remain active in order to operate the loading arm.

INTERRUPTED CYCLES:

A cycle that has been interrupted may at any instant be restarted. The system memorizes the last step in a cycle sequence even when the cycle is a combination of automatic and manually operated functions. An AUTO command will restart an interrupted cycle.

The system program will assure that no illegal functions are being conducted.

ERROR MESSAGES ON THE DISPLAY.


The machine monitors via the sensors the status of every individual moving part of the machine. Should the expected position or status of a sensor or device not comply with the safety requirements specified in the software, then the system will stop the machine cycle at the point where an error has occurred or if the operator requests an illegal or hazardous command. It will then on the display state the operational error.

EXAMPLE:

A bale has been wrapped in the manual mode. The operator stops the wrapping cycle with the turntable positioned away from the turntable sensor. If an offload command then is given, the system will via the display announce that this is an illegal command, writing "TURNTABLE NOT IN POSITION."

In order to bring the machine into the correct status the operator must then give the system a turntable position command on the **MANUAL POSITIONING SWITCH** which will make the turntable seek the parking position (off loading position.)

Similarly if a manual wrap cycle is requested and the table is not horizontally positioned, the system will not permit this operation and therefore states the reason for the refusal in the display.

Depress the key  several times until the display below is shown.

**HARDWARE TEST
PRESS SET TO ENTER**

The program contains the following:

1. BUILD IN VOLTMETER

Is currently monitoring the battery supply voltage from the tractor battery. The voltmeter will simultaneously display :

- A. The instantaneous battery voltage (off load, inactive hydraulics and on load, active hydraulics.)
- B. The most recent voltage drop caused by activating the hydraulics.
- C. The display will in case of a sudden voltage drop below 8 volt, show the value of the supply at this instant and simultaneously sound the audio alarm.

When the display below is shown, an activation of the individual manual operation switches and Start switch will cause the display to write the status change of the manual operation switch.

Depress the key  several times until the display below is shown.


**HARDWARE TEST
PRESS SET TO ENTER**

DEPRESS 

**SUPPLY VOLTAGE 12,5
LAST DROP 8,3**

2. TEST DIGITAL INPUTS.

This program enables the operator to test the individual sensors. An inactive sensor will produce a "0" indication where an active sensor will produce a "1" statement. Thus if it is required to test the machine Table horizontal sensor then use the MENU buttons to find the display showing the below indicated and then operate the table manually and observe the display for a change in sensor status or activate the sensor with a magnet. The status change will then be shown as a 0 to 1 change.

Depress the key  several times until the display below is shown.

**HARDWARE TEST
PRESS SET TO ENTER**


3. TESTING THE CONTROL PANEL PUSH BUTTONS.

When the display shown below is shown, an activation of the function select buttons will cause the display to write which function select button is pushed. The menu and programming buttons maintains their original purpose and the only button which will show a status change is the "reset / extra turn table revolution button". See section below, the procedures are identical.

Follow the procedures shown in the other hardware test examples.

4. TESTING THE OPERATION SWITCHES.

When the display below is shown, an activation of the individual manual operation switches and AUTO switch will cause the display to write the status change of the manual operation switch. 1 = activated, 0 = inactivated.

Depress the key  several times until the display below is shown.

**HARDWARE TEST
PRESS SET TO ENTER**

DEPRESS  SET
0000

**SUPPLY VOLTAGE 12,5
LAST DROP 8,3**

DEPRESS  SEVERAL TIMES TO FIND THE DISPLAY

**TEST SWITCHES ACTI-
VATED: 0000.0000**

5. TESTING RELAY OUTPUTS

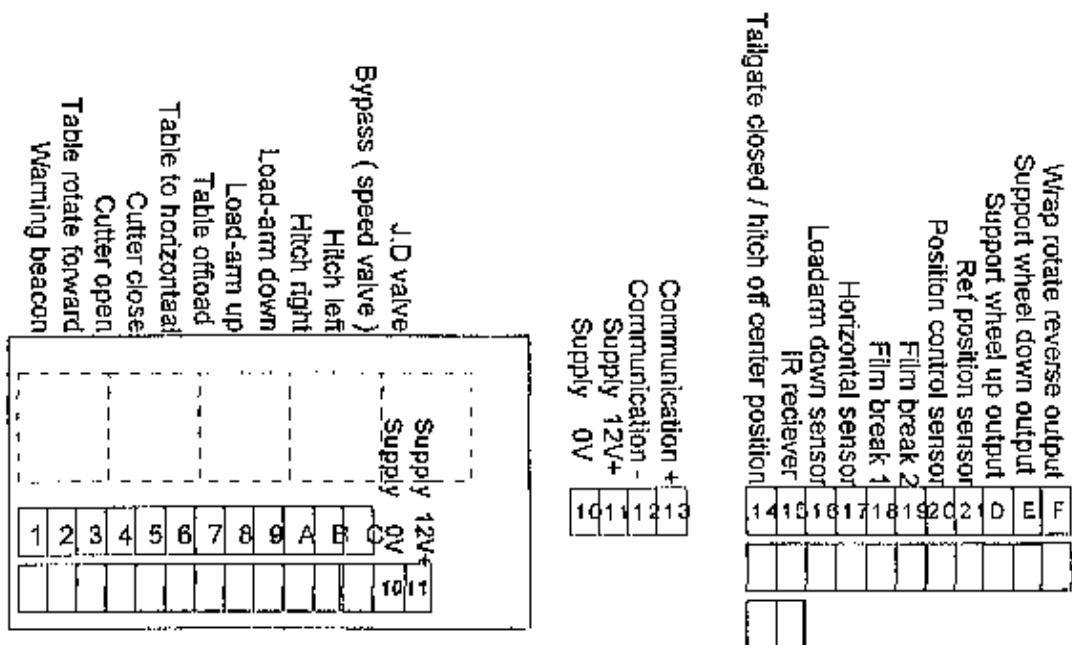
Indicates which hydraulic valves and relays must be active when any operation is commanded. The operator / service man, will from this information be able to determine whether the output signal to a valve is missing or if a valve is defect. The status of the output is shown as a "1" for active and a "0" for inactive.

13	Communication positive	
INPUT FUNCTIONS (SENSORS)		
14	Hitch center position / gate closed	
15	Infra-red sensor	
16	Load-arm down	
17	Table horizontal	
18	Film break 1	
19	Film break 2	
20	Position control (multi-puls)	
21	Wrap count sensor	
OUTPUT FUNCTIONS		
FUNCTIONS ACTIVATED ON CONTROL PANEL.		DISPLAY SHOWS ACTIVATED RELAYS. (terminal. 1 2 3 4 5 6 7 8 9. A B C E F (15))
D	Support wheel up	(terminal. 1 0 0 0 0 0 0 0 0 0 1 1 0 0 (15))
E	Support wheel down	(terminal. 1 0 0 0 0 0 0 0 0 0 1 0 1 0 (15))
F	Table reverse.	(terminal. 1 0 0 0 0 0 0 0 0 0 0 0 0 1 (15))

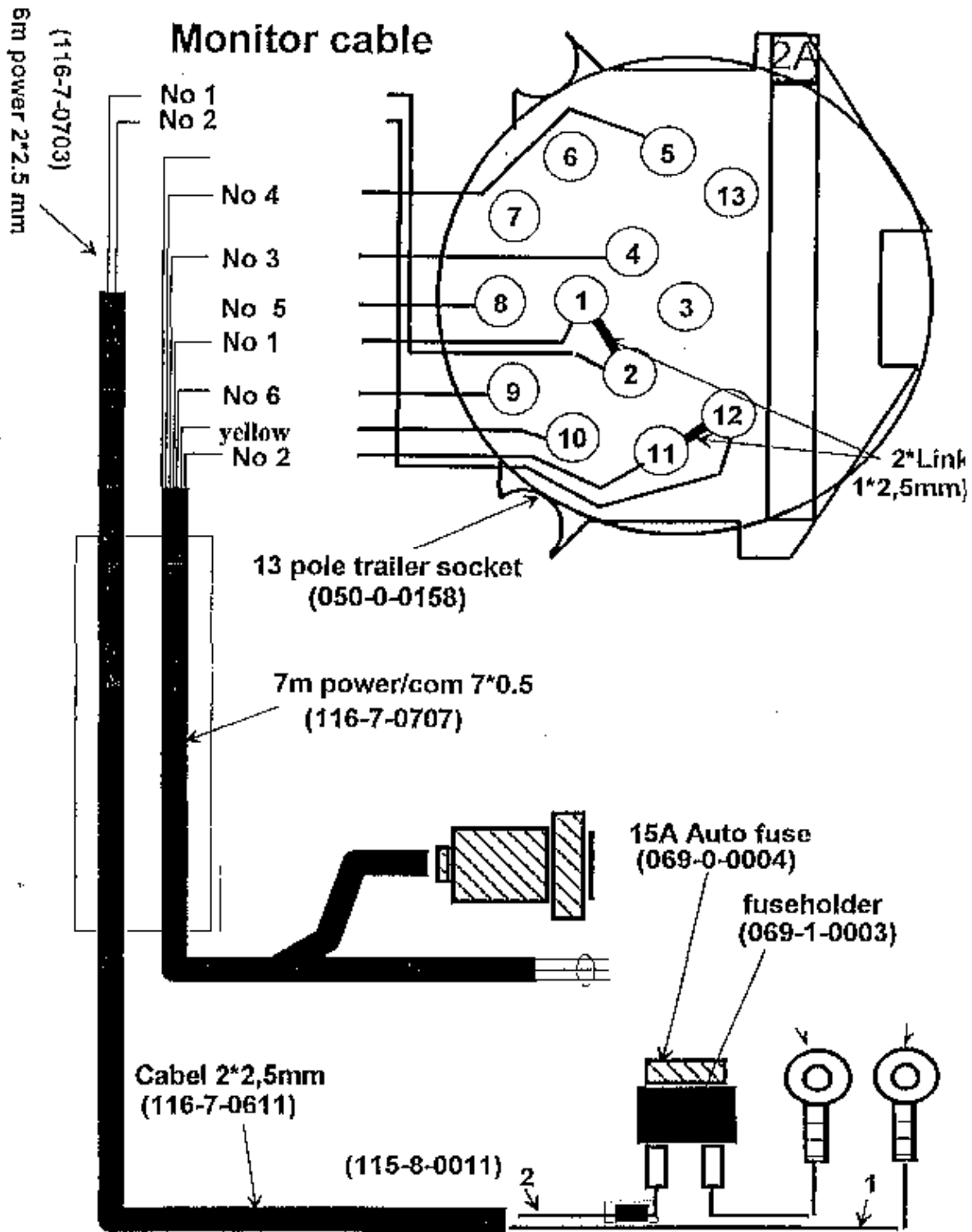
IMPORTANT! In the above examples it shown that relay 11 active status is indicated with a “+” symbol. This means that this output is activated as a result of the other functions and cannot be activated individually but is active together with the other functions.

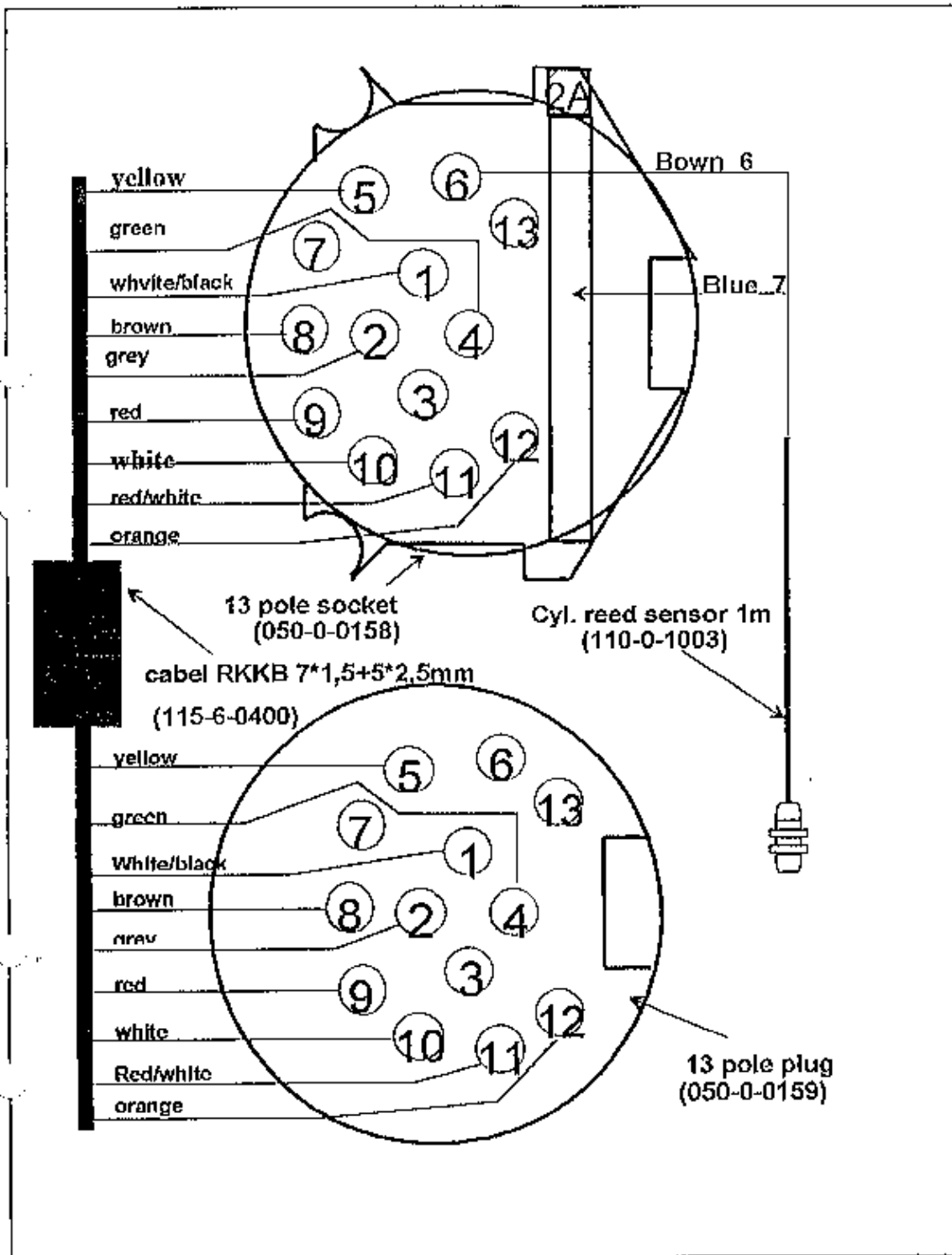
As it is shown in line I. in the above table, the CUTTER CLOSE function requires that the following terminals in the termination box must be active in order to perform this machine functions: (refer to the drawing of the printed circuit.)

Cutter close function requires that terminals 1,3 AND B presents a 12 volt output. Note the JD terminals are active 0 volt (inactive 12 volt.)



CABLES AND TERMINATIONS





COMPLETE DISPLAY TEXT AND MESSAGES

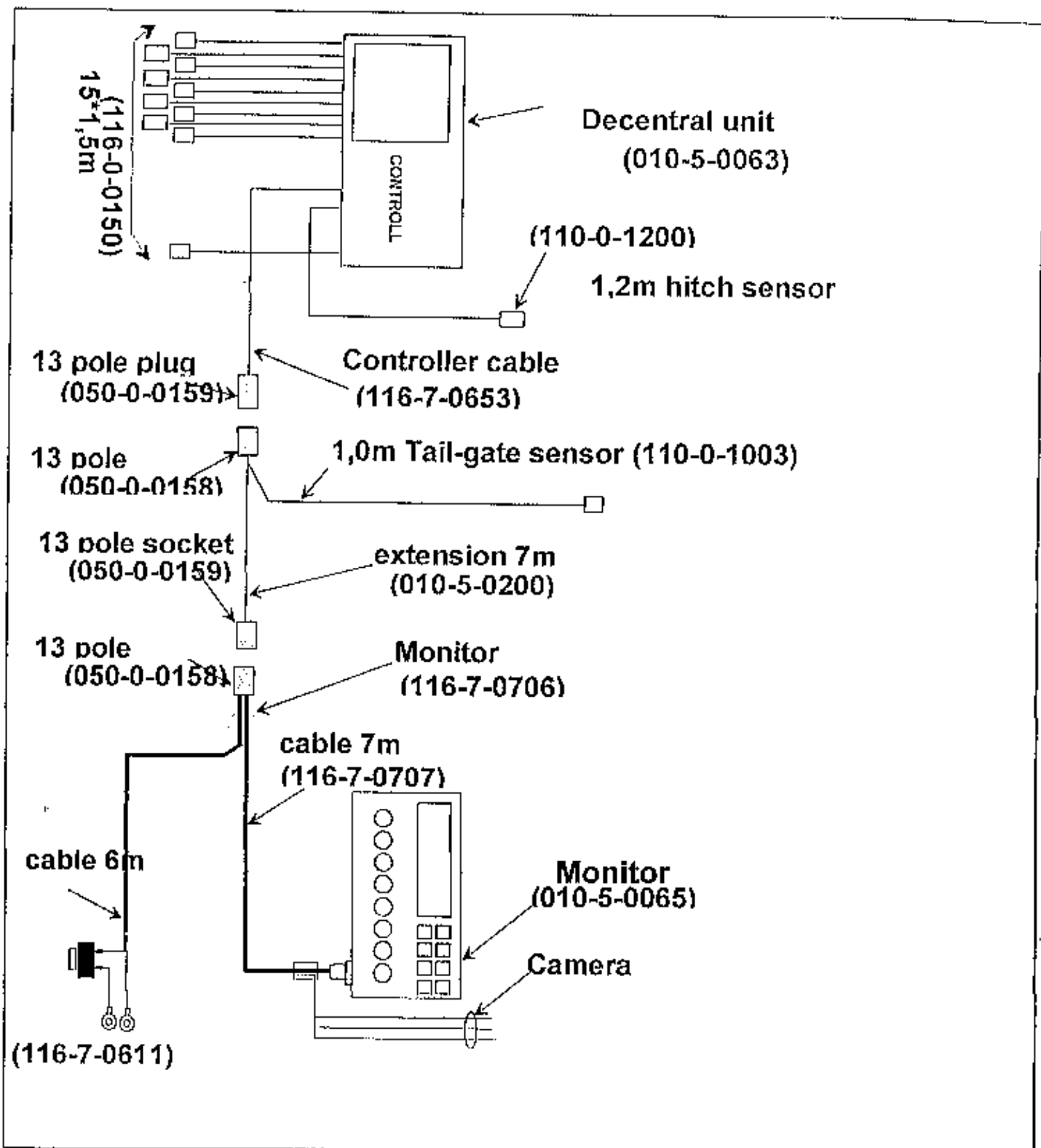
DISPLAY EXPLANATION	DISPLAY INDICATION
<p>This operative display shows the commonly most needed information. The number 15 indicates the actual number of applied turntable revolutions at this instant. The number 20 is the operator programmed turn table revolution requirement. The number 1 is the bale counter in use and the number 324 is the quantity of bales registered in counter number 1.</p> <p>The "O" (zero) in the top right hand corner means that there is a bale positioned on the table.</p>	<p>WRAP CYCLE 15 : 20 0 BALESCOUNTER : 1 324</p> <p>OR IF CYCLE IS COMPLETED WRAP CYCLE 15 : 20 - READY TO OFFLOAD</p> <p>OR IF IS OFFLOADED</p> <p>WRAP CYCLE 15 : 20 - READY TO OPEN TAILGATE</p>
<p>The transport function bypasses the normal safety criteria for the hitch / gate functions. Wrapping is not possible while the function is active</p>	<p>ACTIVATE TRANSPORT FUNCTION, PRESS SET</p>
<p>To exit transport, depress exit.</p>	<p>Transport-function Active now</p>
<p>The transport function bypasses the normal safety criteria for the hitch / gate functions. Wrapping is not possible while the function is active</p>	<p>ACTIVATE TRANSPORT FUNCTION, PRESS SET</p>
<p>This is the operator service level. When in this mode the operator is able to engage / disengage the various Sensors. Also variables such as load arm, cutter and tip timer functions may here be set or adjusted.</p>	<p>SETUP (INLINER) Press SET to enter.</p>
<p>Entering the user changeable parameters.</p>	<p>WELCOME TO SETUP! TYPE:INLINER</p>
<p>With a NO statement, the system will automatically commence the wrapping cycle upon the reception of the load arm down signal.</p>	<p>WAIT FOR START SIGNAL AFTER LOAD: NO</p>
<p>With a YES statement the controller will expect an operator command before offloading the bale and state READY TO OFFLOAD in the display.</p>	<p>WAIT FOR START SIGNAL BEFORE OFFLOAD: YES</p>
<p>The time set for the loading arm to raise from horizontal to vertical position during the loading sequence.</p>	<p>LOAD ARM UP DURATION: 4,0</p>
<p>The time set for the loading arm hydraulics to remain active after the actual horizontal signal is received.</p>	<p>LOAD ARM DOWN AFTER SENSOR DURATION: 0,2</p>
<p>The time set for the film release function to remain active in order to release the film properly.</p>	<p>FILM RELEASE DURATION: 0,2</p>
<p>The time set for the table to raise from horizontal to vertical position during the offloading sequence.</p>	<p>TIP UP DURATION OFF LOAD BALE: 3,0</p>
	<p>SENSOR SETUP Press SET to enter</p>
<p>If signals are absent from 1 of the film rollers the system will sound the alarm and on the display announce the reason. If signals from both rollers are missing, the system will stop, sound the alarm and make a statement on the display.</p>	<p>FILM BREAK SENSORS INSTALLED: YES</p>
<p>In the event of a defect sensor</p>	<p>LOAD ARM SENSOR INSTALLED: YES</p>

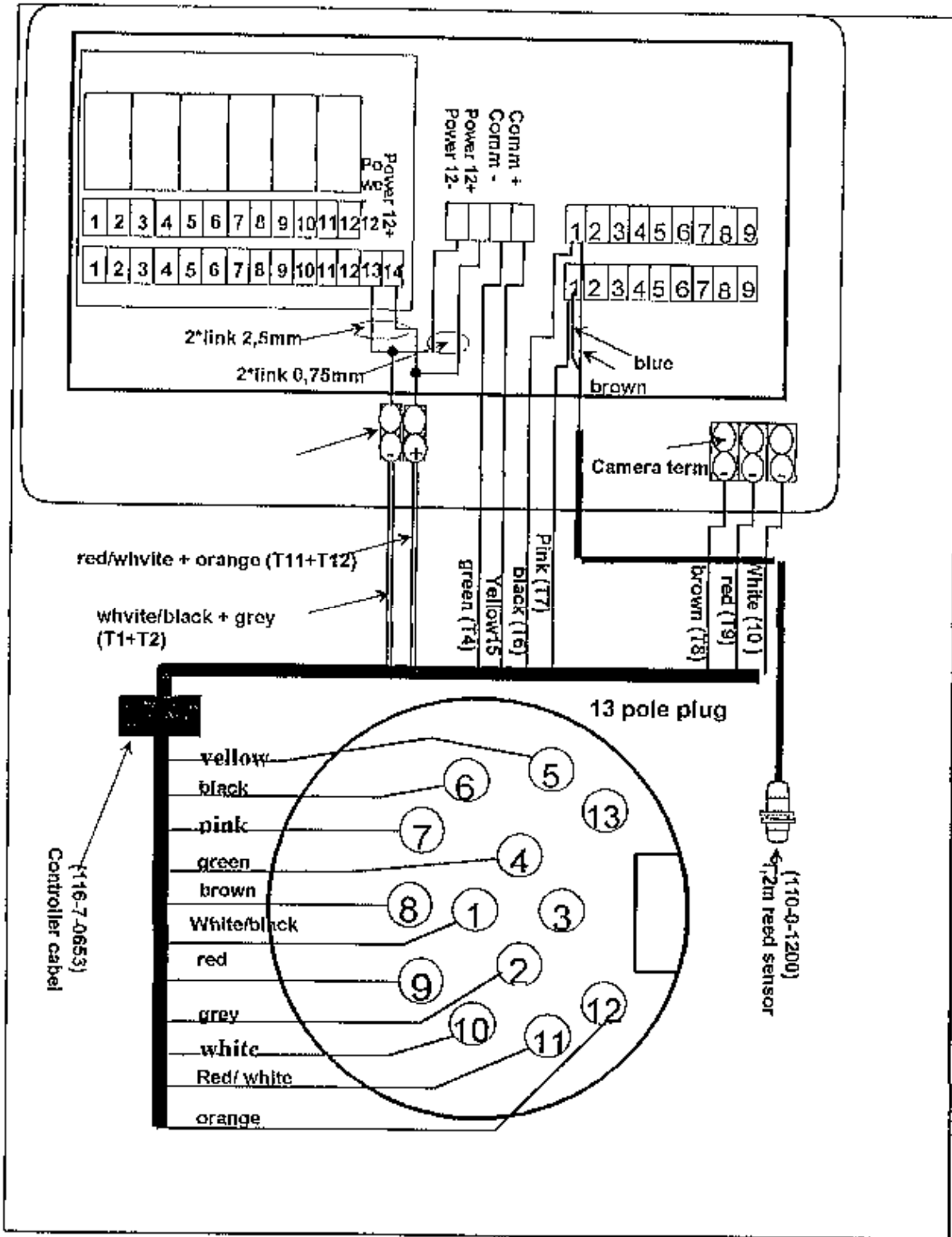
Enables the testing of each relay output function for the hydraulics on the controller	TEST RELAYS, 0=OFF 00000000.0000000 (12)
Enables the control of turntable pulses counted each bale.	TEST COUNTED PULSES THIS BALE: 0
Enables to test the IR receiver and transmitter functions.	TEST. IR REMOTE CONTROL: 00 00 00 00

**TANCO AUTOWRAP
IN-LINE ROUND BALE WRAPPER
CHAIN DRIVE ROLLER ASSY
PARTS LIST**

ITEM NO:	DESCRIPTION:	QTY:	PART NO:
1	TURNTABLE ASSY	1	WD91-TT
2	DRIVE ROLLER ASSY	1	WD91-DR
3	IDLER ROLLER ASSY	1	WD91-IR
4	BALE BELT	1	Z05-02-IL
5	GEARBOX	1	Z01-25-300
6	M12 x 30mm SETS	4	Z26-082S
7	12mm DIA SPRING WASHER	4	Z12-02-12
8	DRIVE SHAFT	1	WD91-DS
9	26 TOOTH SPROCKET 3/4" SIMPLEX	1	Z06-IL-S26
10	26 TOOTH SPROCKET 3/4" SIMPLEX	1	Z08-IL-30
11	3/4" CHAIN x 93 LINKS	1	Z09-AW-93
12	40mm DIA FLANGE BEARING (RHP)	2	Z06-ISFT40A
13	M12 x 50mm BOLTS	6	Z26-086S
14	M12 x 130mm BOLTS	4	Z26-09415
15	M12 LOCKNUTS	8	Z23-12
16	12mm DIA FLAT WASHER	8	Z10-02-12
17	BEARING COVER PLATE	2	WD91-244
18	BEARING COVER PLATE	1	WD91-243
19	M8 x 25mm BUTTON HD. SETS	8	Z13-19-08-25
20	8mm DIA MUD WASHER	10	Z11-020-081
21	8mm DIA SPRING WASHER	10	Z12-02-08
22	CHAIN GUARD BACKING PLATE	1	WD91-CGBP
23	CHAIN GUARD	1	WD91-CG
24	M10 x 80mm BOLTS	2	Z26-0691B
25	10mm DIA FLAT WASHER	2	Z10-02-10
26	10mm DIA SPRING WASHER	2	Z12-02-10
27	TURNTABLE COVER PLATE	1	WD91-TCP
28	BELT GUIDE ASSY	2	WD91-BG
29	M8 x 25mm SETS	4	Z26-081S
30	M5 GRUB SCREW	1	Z28-005
31	KEY 12mm x 10mm x 32mm LONG	2	WD91-K32
32	M6 GRUB SCREW	2	Z28-006
33	M10 GRUB SCREW	1	Z28-010
34	SHEAR BOLT M8 x 40mm	1	Z26-040S
35	M8 LOCKNUT	1	Z23-08
36	BEARING COVER PLATE	1	WD91-242
37	40mm DIA FLANGE BEARING C/W CAMLOCK	3	Z06-ISFT40C

If the load arm sensor is defect it may be disengaged in order to operate the function manually.	TABLE HORIZONTAL SENSOR INSTALLED: YES
With a NO statement, the system will automatically commence the wrapping cycle upon the reception of the load arm down signal.	LOAD UPON TAILGATE SIGNAL: YES (only applicable for inline configuration)
Actual Rpm is the speed at which the turntable is rotating at present. Max 30 is the maximum speed the system is programmed to achieve. The number 16 to the right of the number 30, is the operator adjusted speed level which the controller then will maintain.	ACTUAL RPM 10 ALARM LIMITS (16-31) : 10
This operative display shows at all times which function the machine operates at present. This feature enables the operator to monitor the stage the machine is at during a cycle. It is also of great assistance should it be necessary to determine which relay outputs should be active for a given function.	ACTIVATED: NO FUNCTIONS ACTIVE.
The system contains 10 bale counters. When this display is shown, it is possible to inspect the sum of all bale counters. Machine total (the sum of all bales ever made on the machine.) and the quantity of each individual bale counter.	BALE COUNTERS Press SET to enter.
Bales total is the complete number of bales wrapped since the last reset this display. Machine total is the number of bales wrapped on the machine.	BALES TOTAL. : XXXX MACHINE TOTAL: XXXX
The system contains 9 sub counters total, 3 on 3 individual displays.	BALECOUNTER 1: XXXX 2: XXXX 3: XXXX
Displays the number of working hours of the machine in 1 week, day or other. (Reset able) and the total number of the machine operating hours. (Not a reset able facility.)	WORKING HOURS: 123 MACHINE TOTAL : 798
The system contains a number of languages for all SETUP parameters, messages and operator instructions. The language required for this display messages may be chosen (if available) via this menu.	LANGUAGE : ENGLISH (Press SET to enter)
The hardware test program is a tool facility enabling and guides the operator and service people to test and inspect almost all functions, switches and push buttons on the system. It also contains a battery supply voltmeter which automatically will be displayed should the voltage drop below 8 volt during the operation.	HARDWARE TEST Press set to enter.
Displays the instantaneous battery supply loaded and off load. The last drop is the lowest voltage supply measured during current surge when activating the hydraulics.	SUPPLY VOLTAGE:xx.xV LAST DROP: xx.xV
Enables the testing of each sensor or sensor input.	TEST DIGITAL INPUTS STATUS:0000.0000 (8)
Enables the testing of each push button on the control panel.	TEST KEYS PRESSED: 00000.00000
Enables the testing of each function switch on the control panel	TEST SWITCHES ACTI- VATED:0000.00

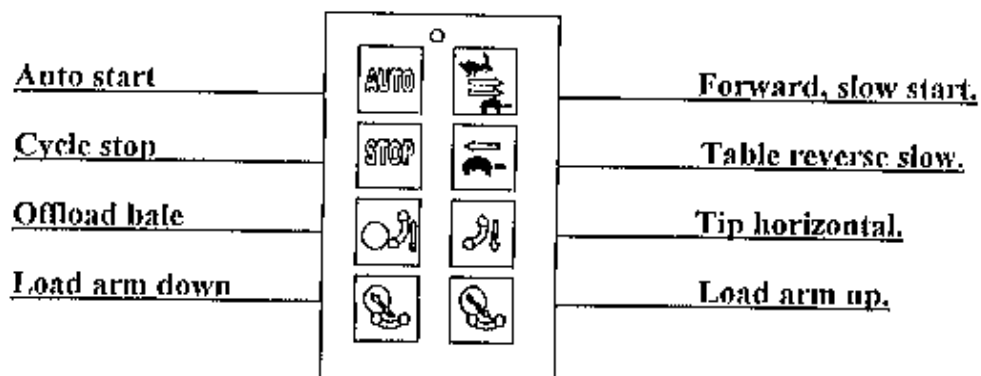




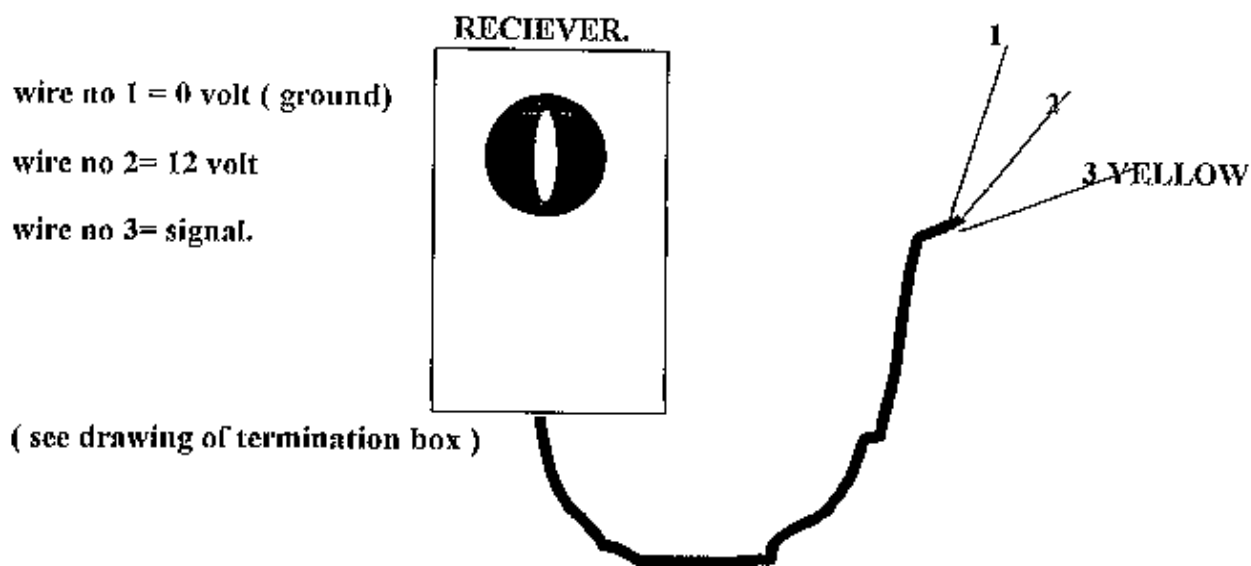
THE INFRA-RED SYSTEM

The operational radius of the system is typically 30 to 60 meters, depending on whether conditions and the state and type of battery used. Worst situations are early morning sunshine and at sundown, where 20 meters can be expected.

Further! Tractors may be equipped with UV filtered windscreens also reducing the transmission radius of the system.



Warning! The AUTO function on the handset, will start the machine with equal conditions to those, when using the AUTO command on the actual controller panel.



DEPRESS $\xrightarrow{\text{SET}}$
8888

SUPPLY VOLTAGE 12,5
LAST DROP 8,3

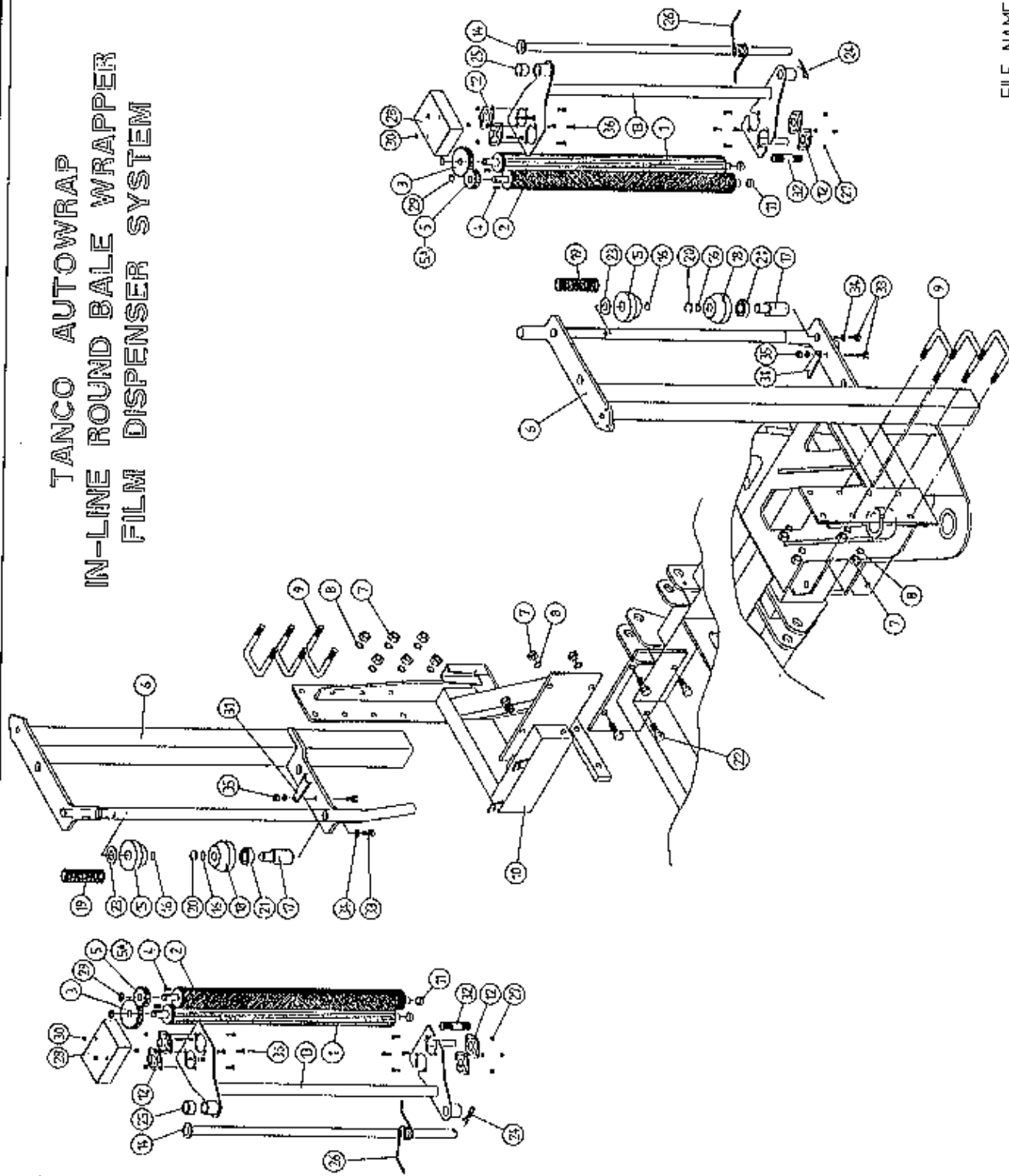
DEPRESS \downarrow - SEVERAL TIMES TO FIND THE DISPLAY

TEST DIGITAL INPUTS
STATUS: 0000.0000 (8)

THE SENSORS ON THE MACHINE.

<i><u>SENSOR NAME</u></i>	<i><u>SENSOR FUNCTION</u></i>
HITCH / TAIL GATE SENSOR D	Hitch sensor clears for the use of the load arm functions when active, in the Offline mode. Tailgate sensor triggers and clears for the load arm operation and auto load when the sensor is active (Tailgate is closed.) Inline mode.
LOADARM DOWN SENSOR	When the sensor is active the system assumes it is safe to automatically and manually commence the wrapping cycle and also allows the turntable manually to be operated in both forward and reverse direction.
TABLE HORIZONTAL SENSOR	Governs the correct position of the table for the loading, offloading and wrapping cycle
FILM BREAK SENSORS	Stops the wrapping cycle if both film rollers are empty or film is broken and gives visual and audio alarm if any one of the film rollers stops rotating.
MULTI PULSE ROTATION SENSOR	Controls the positions for cutter operation, film release and the deceleration point with respect to the turntable position during the beginning and the end of a cycle.
ROTATE SENSOR (1PULSE / REV.)	Counts the turntable revolutions applied and determines the stop / parking position of the turntable and clears for the turntable tip and load arm functions.
<u>NOTE!</u>	All sensors installed on the machine, should under all normal circumstances be engaged. The sensor engage / disengage facility is only intended as an aid for the operator in case of a defect sensor, enabling continuous work.

TANCO AUTOWRAP
 IN-LINE ROUND BALE WRAPPER
 FILM DISPENSER SYSTEM

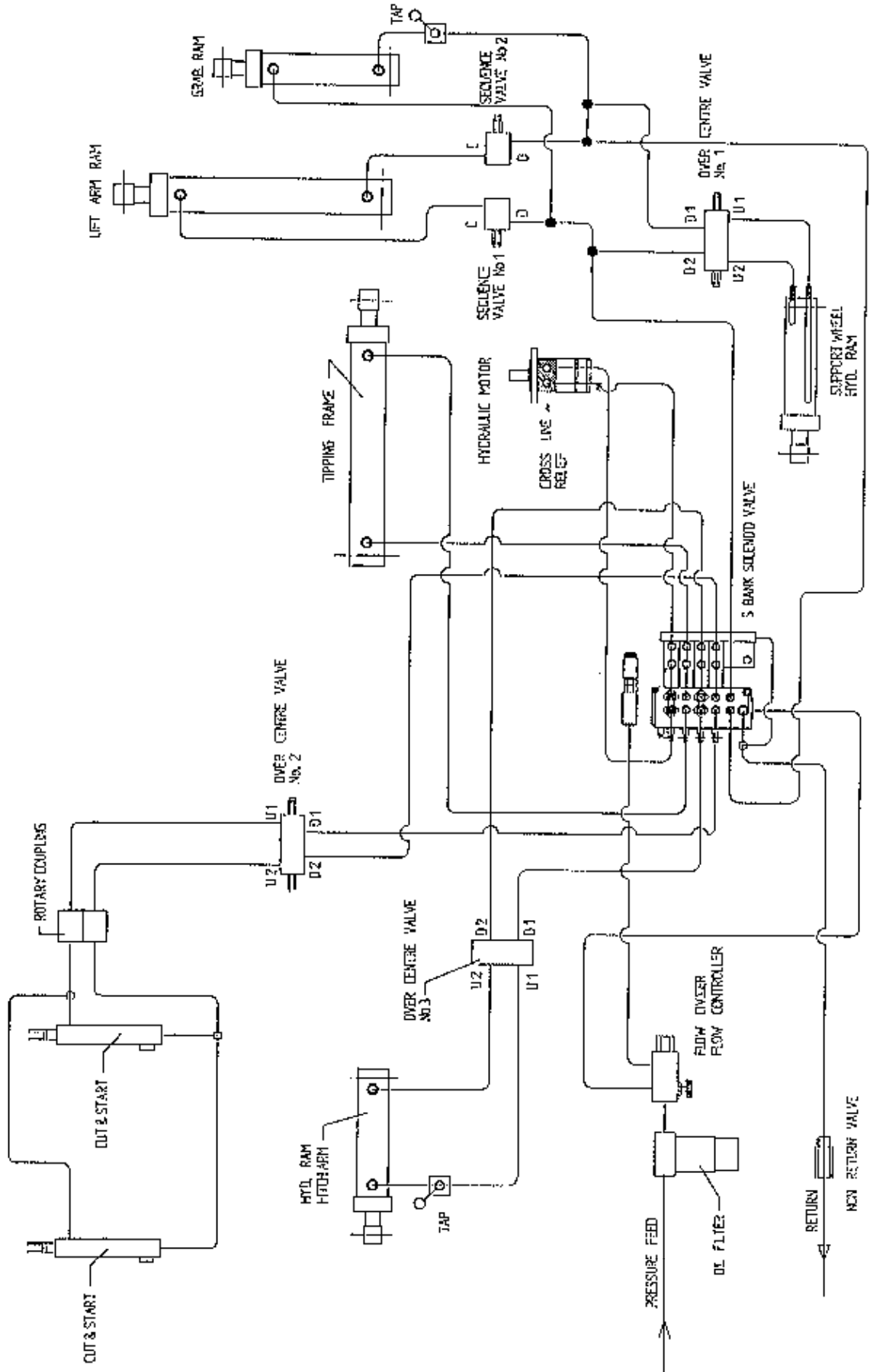


FILE NAME: W091P13

**TANCO AUTOWRAP
IN-LINE ROUND BALE WRAPPER
FILM DISPENSING SYSTEM
PARTS LIST**

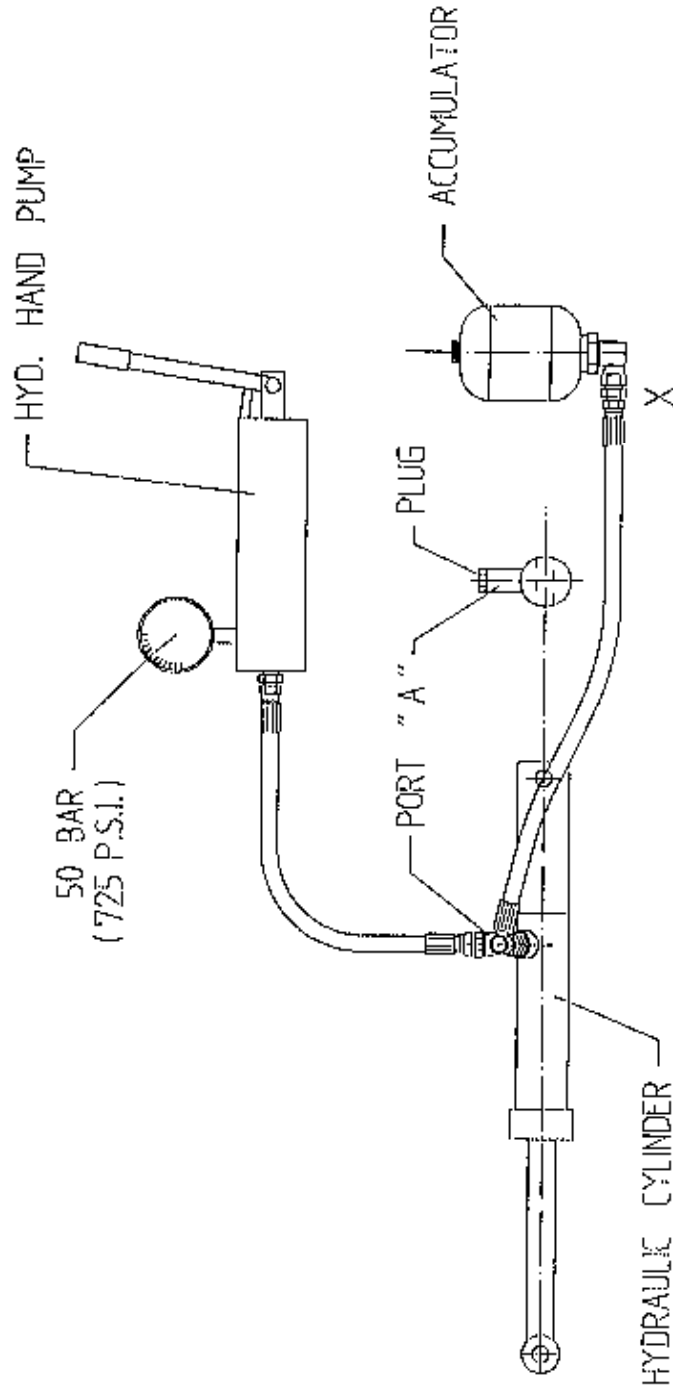
ITEM NO:	DESCRIPTION:	QTY:	PART NO:
1	INNER ROLLER ASSY	2	D617-IRA1
2	OUTER ROLLER ASSY	2	D617-ORA
3	60 T GEAR	2	D617-G60
4	6mm SQ. KEY STEEL x 20mm LONG	4	WD67-KS20
5	39T GEAR 55% STRETCH	2	D617-G39
5A	35T GEAR 70% STRETCH	2	D617-G35
6	DISPENSER MAST	2	WD91-DM
7	M16 HEX NUT	8	Z18-16
8	16MM SPRING WASHER	16	Z12-02-16
9	80MM M16 'U' BOLTS	16	Z35-52
10	REAR DISPENSER MAST MOUNTING BRACKET	2	WD91-RDM
11	3/4" x 10mm SPACER	2	D617-026
12	RHP SLF20A BEARING	4	Z06-17
13	FILM DISPENSER MAIN FRAME	2	WD617-FDM
14	PIVOT PIN	2	WD617-PP1
15	TOP CONE	2	WD90-012
16	CIRCLIP	4	Z28-525
17	FILM SPOOL LOWER	2	WD617-013
18	BOTTOM CONE	2	WD90-013
19	SPRING	2	Z07-07
20	PLASTIC CAP 1 1/4" DIA	2	Z39-80
21	BEARING	2	Z06-AWRB
22	M16 x 50mm SET	4	Z26-254S
23	1" DIA FLAT WASHETR	2	Z10-02-30
24	6mm "R" CLIP	2	Z36-03
25	PLATED COLLAR	2	WD617-025
26	TORSION SPRING	2	Z07-04
27	M8 LOCKNUT	4	Z23-06
28	DISPENSER GEARBOX COVER	2	WD617-GC1
29	20mm EXTERNAL CIRCLIP	4	Z28-520
30	M6 LOCKNUT	4	Z23-06
31	PLATE LATCH	2	WD617-019
32	PLASTIC HAND GRIP	2	Z32-16
33	M10 x 25mm SET	4	Z26-0611S
34	10mm DIA SPRING WASHER	4	Z12-02-10
35	M10 HEX NUT	2	Z18-10
36	M8 x 20mm HEX SET	16	Z26-039S

TANCO AUTOWRAP INLINE 2010 MODEL HYDRAULIC CIRCUIT DIAGRAM



FILE NAME:- W091FC11

INSTRUCTIONS FOR RECHARGING AND REDUCING PRESSURE IN HYDRAULIC BALE RAMP CYLINDER



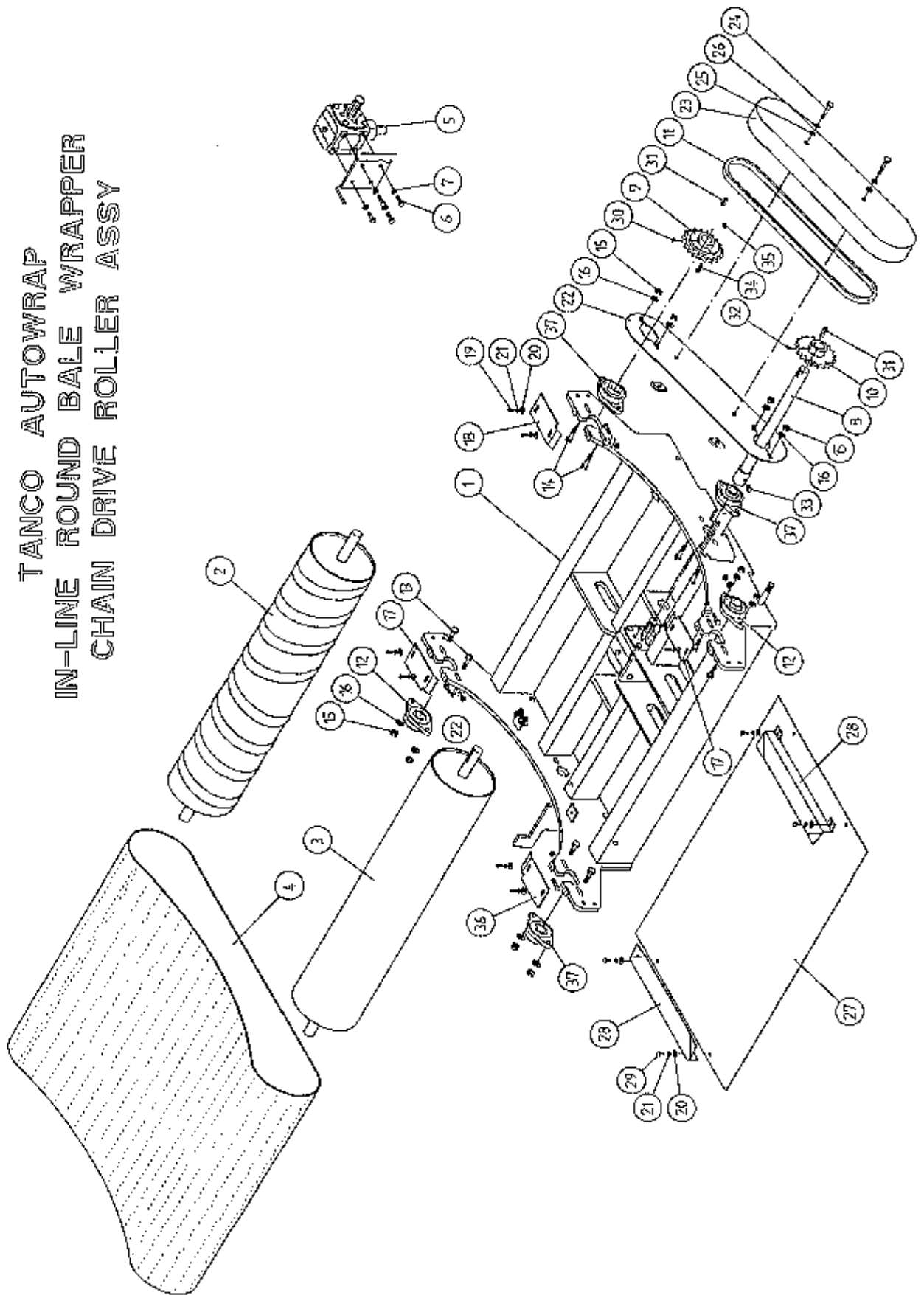
TO RECHARGE CYLINDER

1. REMOVE PLUG FROM PORT "A"
2. CONNECT HOSE FROM HYD. HAND PUMP TO PORT "A"
3. CHARGE CYLINDER TO A PRESSURE OF 50 BAR (725 P.S.I.)
4. BLEED AIR FROM SYSTEM BY SLACKENING HOSE CONNECTION AT BASE OF ACCUMULATOR MARKED X. RETIGHTEN CONNECTION.
5. REMOVE PUMP HOSE FROM PORT "A" AND REFIT PLUG.

TO REDUCE PRESSURE IN CYLINDER

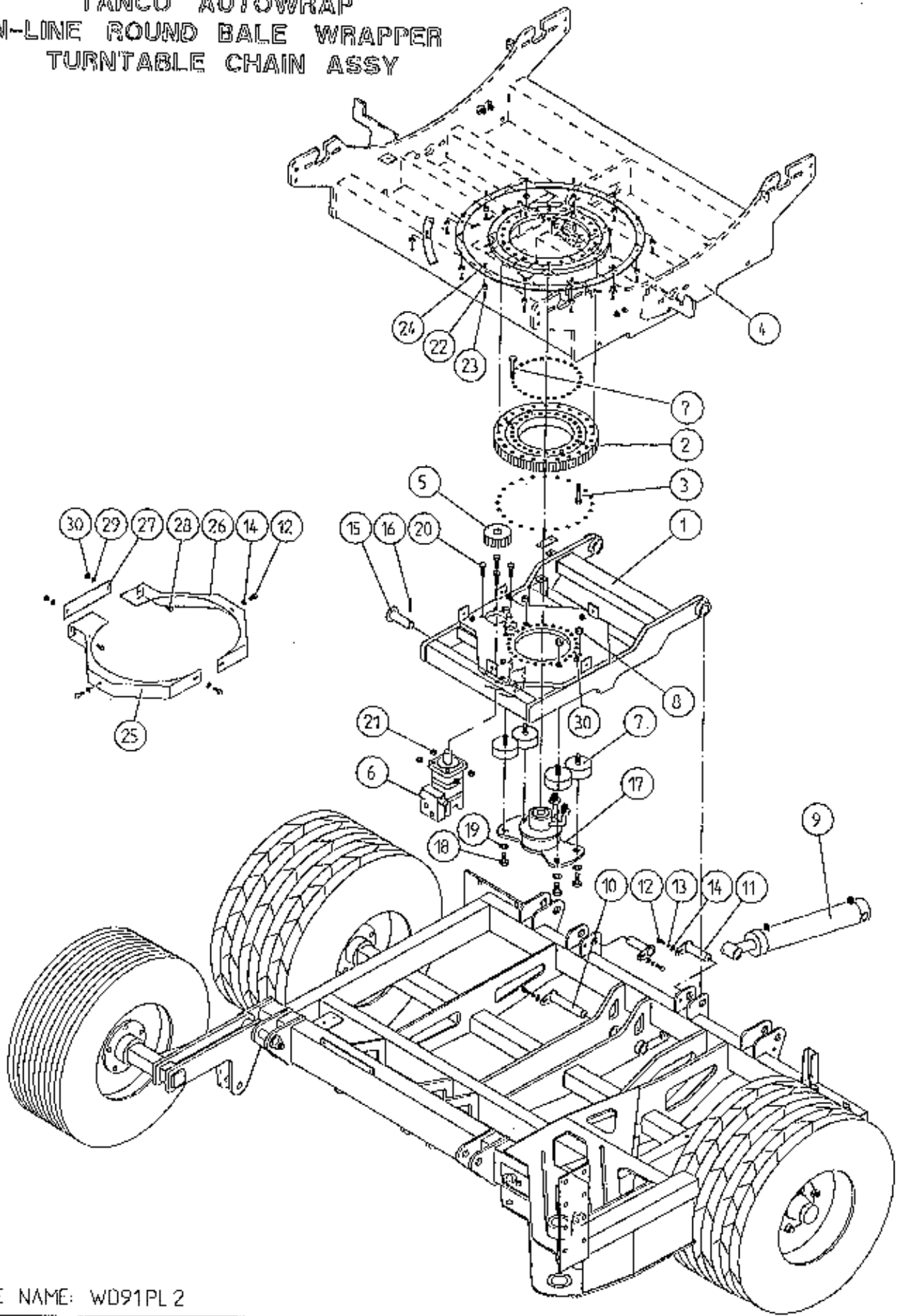
1. SLACKEN CONNECTION ON HOSE END JUST ENOUGH TO ALLOW OIL TO BLEED OUT SLOWLY.
2. RETIGHTEN CONNECTION AND CHECK OPERATION OF BALE RAMP AS DETAILED IN FIG. 1
3. REPEAT PROCEDURE UNTIL OPERATION OF RAMP IS CORRECT.

TANCO AUTOWRAP
 IN-LINE ROUND BALE WRAPPER
 CHAIN DRIVE ROLLER ASSY



FILE NAME: WD91PL1

TANCO AUTOWRAP
 IN-LINE ROUND BALE WRAPPER
 TURNTABLE CHAIN ASSY

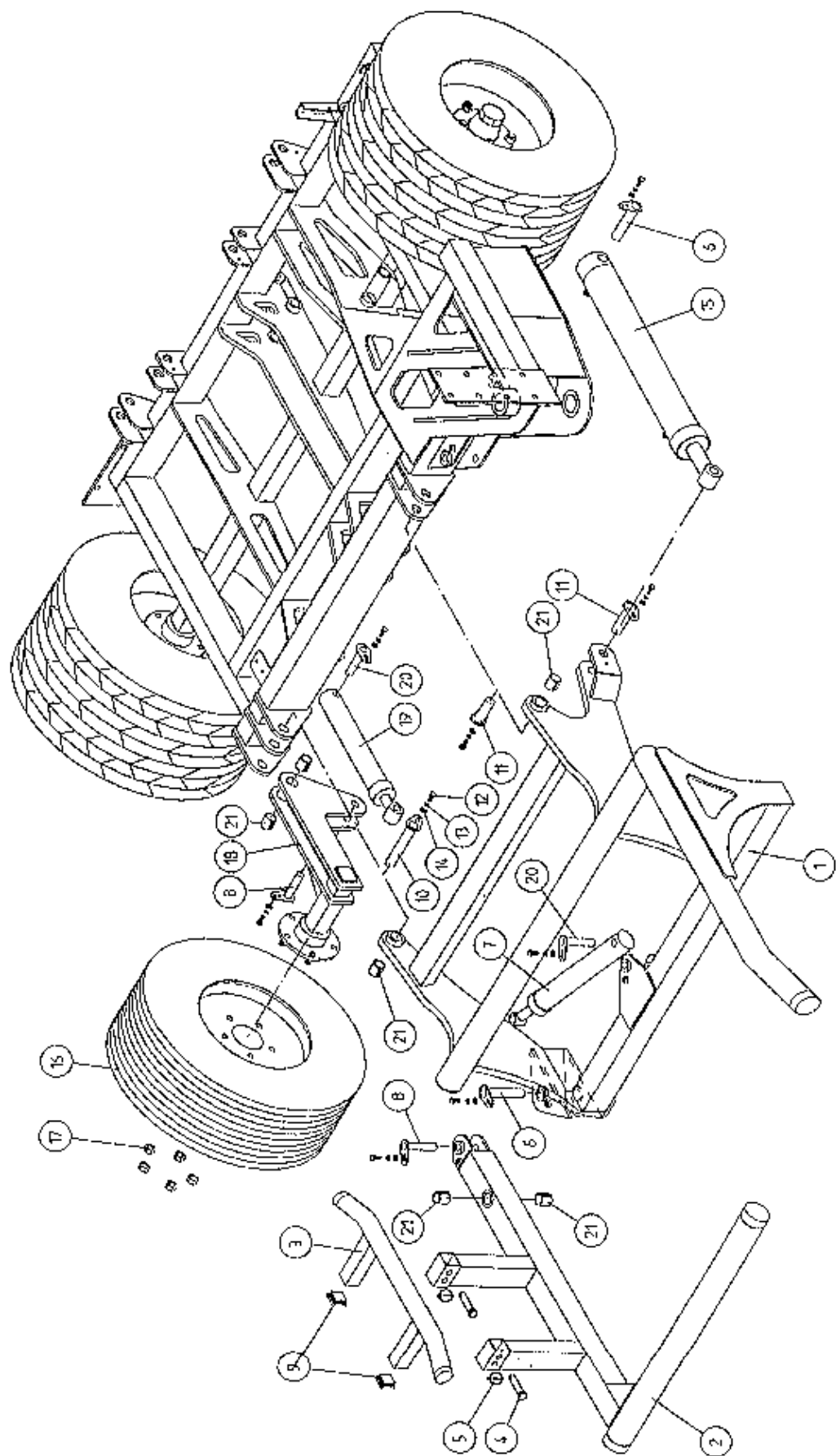


FILE NAME: WD91PL 2

**TANCO AUTOWRAP
IN-LINE ROUND BALE WRAPPER
TURNTABLE DRIVE ASSY
PARTS LIST**

ITEM NO:	DESCRIPTION:	QTY:	PART NO:
1	TIPPING FRAME ASSY	1	WD91-TF
2	SLEWING RING	1	Z01-25-200
3	M12 x 90mm BOLTS	20	Z26-091B
4	TURNTABLE ASSY	1	WD91-TT
5	GEAR	1	Z06-IL-S22
6	HYDRAULIC MOTOR 1600cc	1	Z01-02-IL180
7	RUBBER BUFFER 100mm DIA	4	Z40-12
8	M16 LOCKNUT	1	Z23-16
9	TIPPING FRAME LIFT RAM	1	Z01-01-IL125
10	TIPPING FRAME LIFT RAM BOTTOM PIVOT PIN C/W GREASE NIPPLE	1	Z03-11-010
11	TIPPING FRAME PIVOT PIN	1	Z03-IL-02
12	M10 x 25mm SET	6	Z26-0611S
13	10mm DIA SPRING WASHER	3	Z12-02-10
14	10mm DIA FLAT WASHER	6	Z10-02-10
15	TIPPING FRAME LIFT RAM TOP PIVOT PIN	1	Z03-01-681
16	1/4" DIA SPLIT PIN x 50mm LONG	1	Z03-21-29
17	ROTARY COUPLING	1	WD91-RC
18	M16 x 35mm SET	4	Z25-121S
19	16mm DIA SPRING WASHER	4	Z12-02-16
20	M12 x 60mm BOLTS	4	Z26-091B
21	M12 LOCKNUT	4	Z23-12
22	MAGNET	13	ZLY-M
23	M4 x 30mm CSK' SET SCREW	13	ZLY-S2
24	M4 LOCKNUT	13	Z23-04
25	SLEWING RING GUARD FRONT	1	WD91-SGF
26	SLEWING RING GUARD REAR	1	WD91-SGR
27	CLAMPING PLATE	1	WD91-CP
28	M8 x 20mm SET	2	Z26-039S
29	8mm DIA SPRING WASHER	2	Z12-02-08
30	M8 HEX NUT	2	Z18-08
31	M10 LOCKNUT	3	Z23-10
32	M12 x 110mm BOLT	20	Z26-093B

TANCO AUTOWRAP
IN-LINE ROUND BALE WRAPPER
LOADING ARM ASSEMBLY

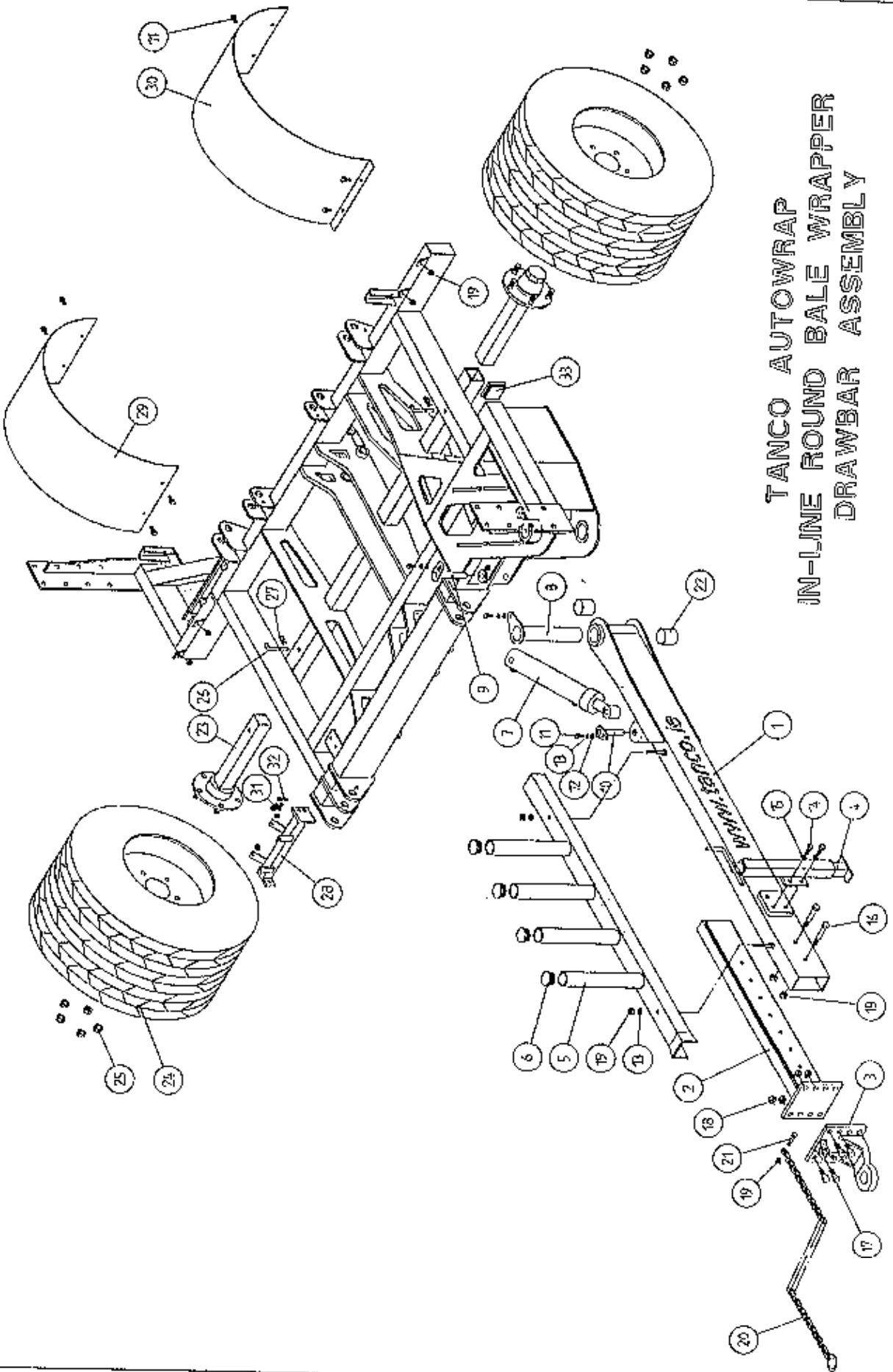


FILE NAME: WD91PL4

**TANCO AUTOWRAP
IN-LINE ROUND BALE WRAPPER
LOADING ARM ASSEMBLY
PARTS LIST**

ITEM NO:	DESCRIPTION:	QTY:	PART NO:
1	LOADING ARM ASSRMBLY	1	WD91-LA
2	OUTER GRAB ARM	1	WD91-OGA
3	BALE STOP	1	WD91-BS
4	SPAREX PIN	2	Z03-04-73
5	7/16" DIA LINCH PIN	2	Z03-22-06
6	OUTER GRAB ARM PIVOT / LOADING ARM LIFT RAM BOTTOM PIVOT PIN C/W GREASE NIPPLE	2	Z01-11-020 Z39-60
7	LIFT ARM GRAB CYLINDER	2	Z01-01-DA77
8	RAM TOP PIVOT PIN	2	Z03-01-905
9	PLASTIC CAP	2	Z32-07
10	MAIN LOADING ARM PIVOT PIN OUTER (LONG) C/W GREASE NIPPLE	1	Z39-60
11	MAIN LOADING ARM PIVOT PIN INNER (SHORT) AND LOADING ARM LIFT RAM TOP PIVOT PIN C/W GREASE NIPPLE	1	Z03-11-010 Z39-60
12	M10 x 25mm SET	7	Z26-081S
13	10mm DIA SPRING WASHER	7	Z12-02-01
14	10mm DIA FLAT WASHER	7	Z10-02-10
15	LOADING ARM LIFT CYLINDER	1	Z01-01-140
16	SUPPORT WHEEL	1	Z04-03
17	WHEEL NUTS	5	M22AWNA
18	SUPPORT WHEEL FRAME ASSY	1	WD91-SWF
19	SUPPORT WHEEL CYLINDER	1	Z01-01-DA98
20	RAM BOTTOM PIVOT PIN	2	Z03-01-798
21	1 1/4" I.D. TENSION BUSH	6	Z05-20-014

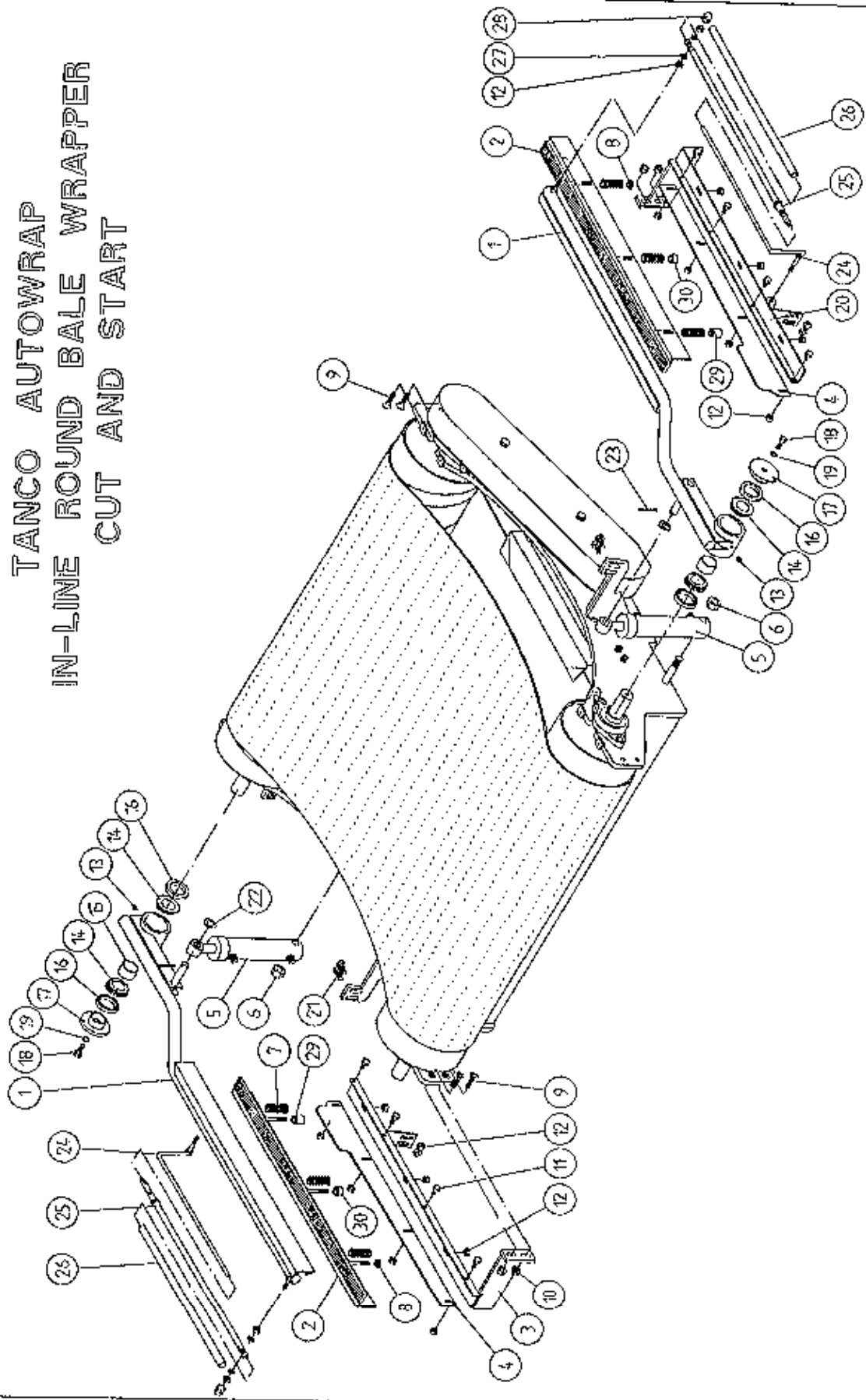
TANCO AUTOWRAP IN-LINE ROUND BALE WRAPPER DRAWBAR ASSEMBLY



**TANCO AUTOWRAP
IN-LINE ROUND BALE WRAPPER
DRAWBAR ASSEMBLY
PARTS LIST**

ITEM NO:	DESCRIPTION:	QTY:	PART NO:
1	DRAWBAR ASSY	1	WD91-DA
2	ADJUSTABLE RING HITCH MOUNTING BRACKET	1	WD91-ADR
3	RING HITCH ASSY	1	WD91-HA
4	SCREW JACK ASSY	1	WD91-SJ
5	FILM HOLDER BRACKET	1	WD91-FHB
6	PLASTIC CAP	4	Z32-08
7	HITCH CYLINDER	1	Z01-01-DA980
8	INLINE DRAWBAR PIVOT PIN	1	Z03-IL-01
9	RAM BOTTOM PIVOT PIN C/W GRAESE NIPPLE	1	Z03-01-192
10	RAM TOP PIVOT PIN C/W GRAESE NIPPLE	1	Z03-01-905
11	M10 x 25mm SET	11	Z26-081S
12	10mm DIA FLAT WASHER	3	Z10-02-10
13	10mm DIA SPRING WASHER	3	Z12-02-01
14	M16 x 30mm SETS	2	Z26-120S
15	16mm DIA SPRING WASHER		Z12-02-16
16	M16 x 100mm BOLTS	2	Z26-261B
17	M16 x 60mm BOLTS	4	Z26-256B
18	M16 LOCKNUTS	4	Z23-16
19	M10 LOCKNUTS	8	Z23-10
20	SAFETY TOW CHAIN	1	WD91-SCA
21	M10 x 50mm BOLTS	1	Z26-066S
22	DX BUSHES 60mm O.D. x 60mm LONG	2	Z03-20-30
23	STUB AXLE	2	Z04-032
24	WHEELS	2	Z04-04-1070
25	WHEEL NUTS	10	ZM22AWWA
26	BISSEL PIN 82mm LONG	2	WD60-861
27	4mm "R" CLIP	2	WD60-861
28	MUD GUARD MOUNTING BRACKET R.H.S.	1	Z36-02
29	MUD GUARD R.H.S.	1	WD91-MGR
30	MUD GUARD L.H.S.	1	WD91-MGL
31	M12 x 25mm SETS	2	Z28-081S
32	12mm DIA SPRING WASHER	2	Z12-02-12
33	PLASTIC CAP 80mm x 80mm SQ.	1	Z32-175

TANCO AUTOWRAP
 IN-LINE ROUND BALE WRAPPER
 CUT AND START

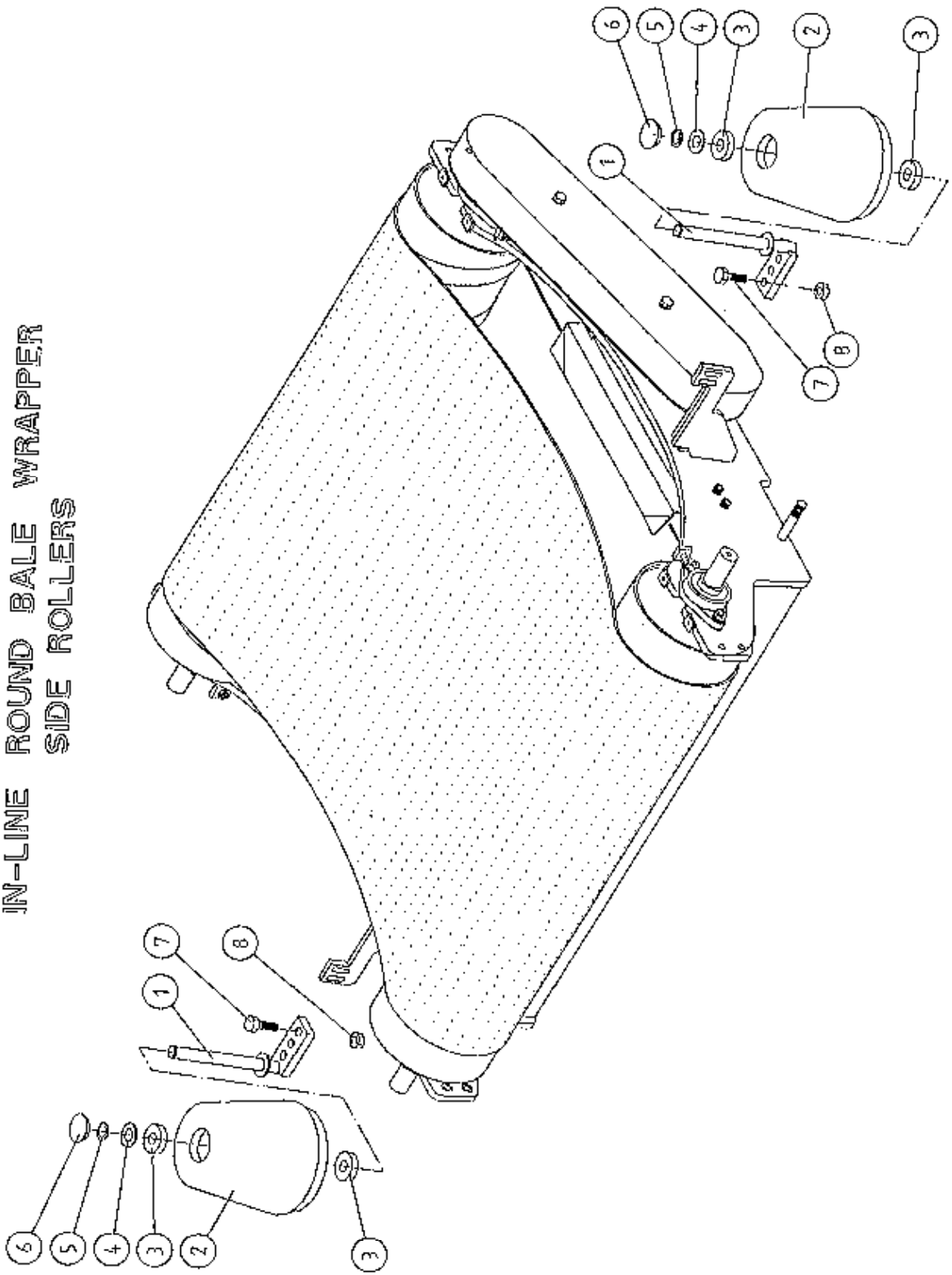


FILE NAME: WC91PL17

**GATHERER AUTOHARP
IN-LINE ROUND BALE WRAPPER
CUT AND START
PARTS LIST**

ITEM NO:	DESCRIPTION:	QTY:	PART NO:
1	CUT AND START ARM ASS	2	WD91-CSA
2	GRIP ASSY	2	WD91-GA
3	BLADE FLAT MOUNTING BRACKET R.H.S.	1	WD91-BFR
4	BLADE FLAT	2	WD91-307
5	HYDRAULIC RAM	2	Z01-01-IL125
6	M20 LOCKNUT	2	Z23-20
7	SPRING	6	Z07-45
8	SPRING RETAINER	2	Z11-02-12FG
9	M12 C'SINK HD. SET x 40mm	4	Z13-5
10	M12 NYLOCK NUTS	4	Z23-12
11	M10 x 20mm SETS	8	Z260-060S
12	M10 NYLOCK NUTS	26	Z23-10
13	1/8" B.S.P. GREASE NIPPLE	2	Z39-60
14	TAPER ROLLER BEARING	4	Z06-TRB
15	BEARING SPACER	2	WD91-310
16	OIL SEAL	4	Z06-CR52
17	RETAINING END CAP	2	WD91-168
18	M12 x 30mm SETS	2	Z26-082S
19	12mm DIA SPRING WASHER	2	Z12-02-12
20	BLADE FLAT MOUNTING L.H.S.	1	WD91-BFL
21	M10 x 40mm SETS	4	Z26-0623
22	20mm DIA FLAT WASHER	2	Z11-02-20
23	1/4" DIA SPLIT PIN x 50mm LONG	2	Z02-21-29
24	FILM GATHERING ROD INNER	2	WD91-FGI
25	FILM GATHERING ROD OUTER	2	WD91-FGO
26	PLASTIC ROLLER	2	WD91-308
27	10mm DIA FLAT WASHER	4	Z01-02-10
28	PLASTIC DOME SHAPED CAP	2	Z32-015
29	STEPPED COLLAR LONG	2	WD91-311
30	STEPPED COLLAR SHORT	2	WD91-312

TANCO AUTOWRAP
IN-LINE ROUND BALE WRAPPER
SIDE ROLLERS



FILE NAME: WD91PL18

**TANCO AUTOWRAP
IN-LINE ROUND BALE WRAPPER
SIDE ROLLERS
PARTS LIST**

ITEM NO:	DESCRIPTION:	QTY:	PART NO:
1	END ROLLER SHAFT ASSY	2	WD91-ERS
2	END ROLLER	2	Z06-AWR
3	BEARING 25mm I.D.	4	Z06-AWRB-93
4	THRUST WASHER	2	WD60-292
5	CIRCLIP	2	Z28-525
6	PLASTIC CAP	2	Z06-AWRC
7	M16 x 65mm BOLT	2	Z26-257B
8	M16 LOCKNUT	2	Z23-16

**TANCO AUTOWRAP
INLINE ROUND BALE WRAPPER
HYDRAULIC COMPONENTS**

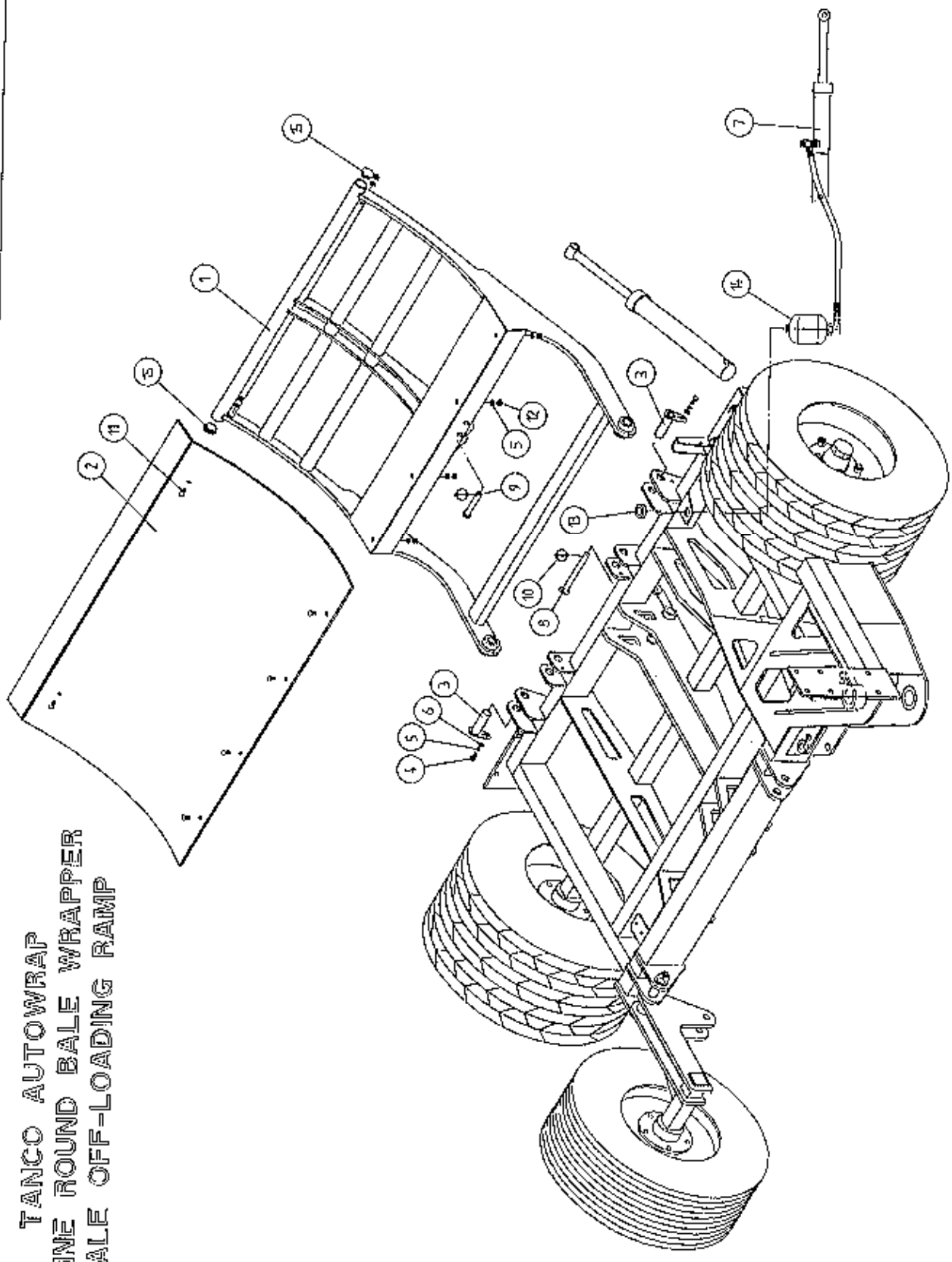
PARTS LIST

ITEM NO.	DESCRIPTION	QTY	PART NO
1	5 BANK SOLENOID VALVE	1	Z01-03-11
2	HYDRAULIC MOTOR C.L.	1	Z01-02-RF200
3	CROSS LINE RELIEF VALVE	1	Z01-03-004
4	1/2" B.S.P. BOTTOM BANJO BOLT (SPECIAL)	2	Z01-03-002B
5	TIPPING FRAME CYLINDER	1	Z01-01-IL93
5A	SEAL KIT FOR ABOVE HYD. RAM	1	Z01-IL93
6	1/2" DOWTY WASHER	12	Z01-04-03
7	3/4" NON RETURN VALVE	1	Z01-03-0175
8	1/2" x 3/8" ADAPTOR	6	Z01-06-06-08
9	1/2" x 1/2" ADAPTOR	3	Z01-06-06-09
10	1/2" MALE END Q/R COUPLING	2	Z01-15-001
11	LIFT ARM CYLINDER	1	Z01-01-140
11A	SEAL KIT FOR ABOVE HYD. RAM	1	Z01-IL01
12	30" ST/90 3/8" DAW HOSE	7	Z38-R2-30-S9
13	72" ST/90 3/8" DAW HOSE	7	Z38-R2-72-S9
14	84" ST/90 3/8" DAW HOSE	2	Z38-R2-84-S9
15	24" ST/90 3/8" DAW HOSE	1	Z38-R2-24-S9
16	12" ST/90 3/8" DAW HOSE	2	Z38-R2-12-S9
17	18" ST/90 3/8" DAW HOSE	1	Z38-R2-18-S9
18	9" ST/90 3/8" DAW HOSE	1	Z38-R2-9-S9
19	48" ST/90 3/8" DAW HOSE	4	Z38-R2-48-S9
20	FILTER	1	Z01-24-08
20A	FILTER ELEMENT	1	Z01-24-08E
21	3/8" x 3/8" ADAPTOR FITTED WITH 0.06" RESTRICTOR	2	Z01-03-40
22	18" ST/90 1/2" DAW HOSE	1	Z12-R2-18-S9
23	228" ST/ST 5/8" DAW HOSE	2	Z58-R2-228-S9
24	SUPPORT WHEEL CYLINDER	1	Z01-01-DA980
24A	SEAL KIT FOR ABOVE HYD. RAM	1	Z01-Y01
25	1/8" DOWTY WASHER	2	Z01-04
26	1/8" x 3/8" ADAPTOR	2	Z01-06-02-06
27	3/8" MALE x 3/8" FEMALE ADAPTOR	5	Z01-05-06-06
28	3/8" MALE/FEMALE 90 ELBOW	13	Z01-14-015
29	IN LINE FLOW DIVIDER	1	Z01-03-10-A7W
30	3/8" DOWTY WASHER	40	Z01-04-02
31	3/8" x 3/8" MALE ADAPTOR	34	Z01-06-06-06
32	SEQUENCE VALVE	2	Z01-03-1044
33	OVER CENTRE VALVE	3	Z01-03-10-A8
34	3/8" BSP SHUT OFF TAP	3	Z01-16-06
35	COPPER WASHER	2	Z01-04-15
36	1/2" x 3/4" ADAPTOR	4	Z01-06-06-8-12
37	3/4" DOWTY WASHER	3	Z01-04-05
38	3/4" MALE ADAPTOR	1	Z01-06-12-12
39	96" ST/90 3/8" HOSE	2	Z38-R2-96-S9
40	60" ST/90 3/8" DAW HOSE	2	Z38-R2-60-S9
41	14" ST/90 3/8" DAW HOSE	1	Z38-R2-14-S9
42	LIFT ARM GRAB CYLINDER	1	Z01-01-DA77
42A	SEAL KIT FOR ABOVE HYD. RAM	1	Z01-Q01
43	3/8" BANJO BOLT (SPECIAL)	2	Z01-20-062S
44	3/8" BANJO BOLT COUPLING	2	Z01-19-06
45	3/8" FEMALE x 3/8" FEMALE ADAPTOR	7	Z01-06-F6-F6
46	170" ST/90 3/8 DAW HOSE	1	Z38-R2-170-S9
47	3/8" MALE x 3/8" MALE x 3/8" FEMALE "T" PIECE	8	Z01-20-062
48	1/2" MALE x 1/2" FEMALE 90 ELBOW	6	Z01-14-016
49	3/8" MALE x 1/2" FEMALE ADAPTOR	1	Z01-05-06-08
50	1/2" MALE x 1/2" MALE x 1/2" FEMALE "T" PIECE	1	Z01-12-003
51	HITCH CYLINDER	1	Z01-01-IL125
51A	SEAL KIT FOR ABOVE	1	Z01-IL125
52	220" ST/90 1/2" DAW HOSE	1	S12-R2-220-S9
53	HYD. RAM (FOR CUT AND TIE PULL DOWN ARMS)	2	Z01-01-IL59
53A	SEAL KIT FOR ABOVE	2	Z01-IL59
54	3/8" MALE x 3/8" MALE x 3/8" MALE "T" PIECE	2	Z01-11-002
55	3/8" FEMALE x 3/8" FEMALE 90 ELBOW	2	Z01-13-001
56	1/2" FEMALE x 1/2" FEMALE ADAPTOR	1	Z01-05-F8-F8
57	3/8" MALE LONG ADAPTOR	6	Z01-06-06L
58	1/2" FEMALE Q/R COUPLING	2	Z01-15-082
59	3/8" x 3/8" ADAPTOR FITTED WITH 0.04" RESTRICTOR	2	Z01-03-39
60	3/8" x 3/8" ADAPTOR FITTED WITH 2mm RESTRICTOR	1	Z01-03-38

**TANCO AUTOWRAP
IN-LINE ROUND BALE WRAPPER
BALE OFF-LOADING RAMP
PARTS LIST**

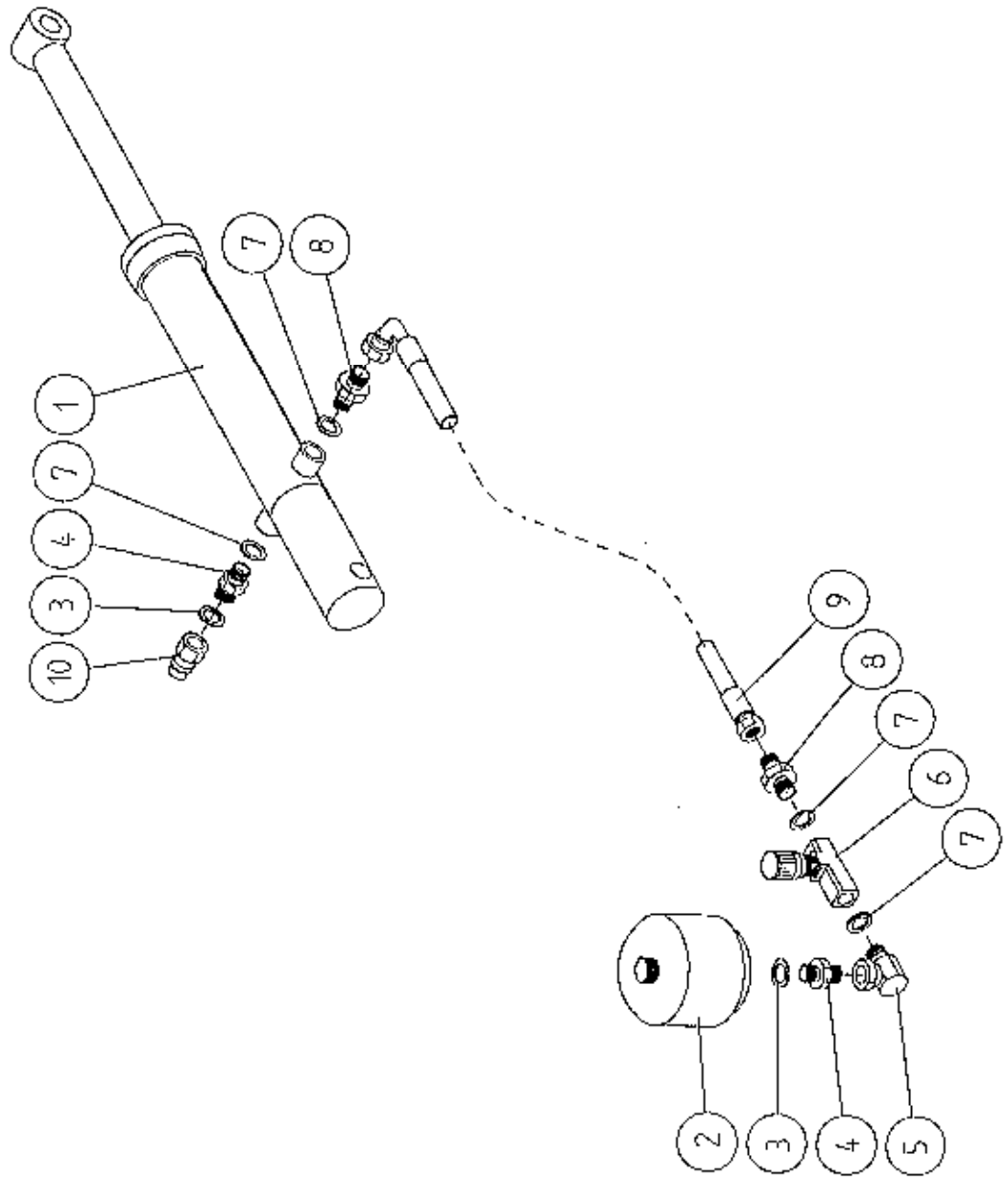
ITEM NO:	DESCRIPTION:	QTY:	PART NO:
1	BALE RAMP	1	WD91-BR
2	BALE MAT	2	Z05-BRM
3	PIVOT PIN	2	Z03-01-905
4	M10 x 25mm SETS	2	Z26-081S
5	10mm DIA SPRING WASHER	2	Z12-02-01
6	10mm DIA FLAT WASHER	8	Z10-02-10
7	BALE RAMP CYLINDER	1	Z01-01-IL5B
8	RAM BOTTOM PIVOT PIN	1	Z03-04-73
9	RAM TOP PIVOT PIN	1	Z03-03-41
10	7/16" DIA LINCH PIN	2	Z03-22-06
11	M10 x 30mm LONG CUP HD. SQ. BOLT	6	Z13-112
12	M10 HEX NUT	6	Z18-10
13	M28 x 1.5mm PITCH HEX NUT	1	Z18-28
14	ACCUMULATOR	1	Z01-01-AWD
15	PLASTIC CAP 1 1/4" DIA	2	Z39-60

TANCO AUTOWRAP
IN-LINE ROUND BALE WRAPPER
BALE OFF-LOADING RAMP



FILE NAME: WD94PL6

TANCO AUTOWRAP - IN-LINE ROUND BALE WRAPPER
 HYDRAULIC BALE RAMP COMPONENTS



FILE NAME: WD91HC 15

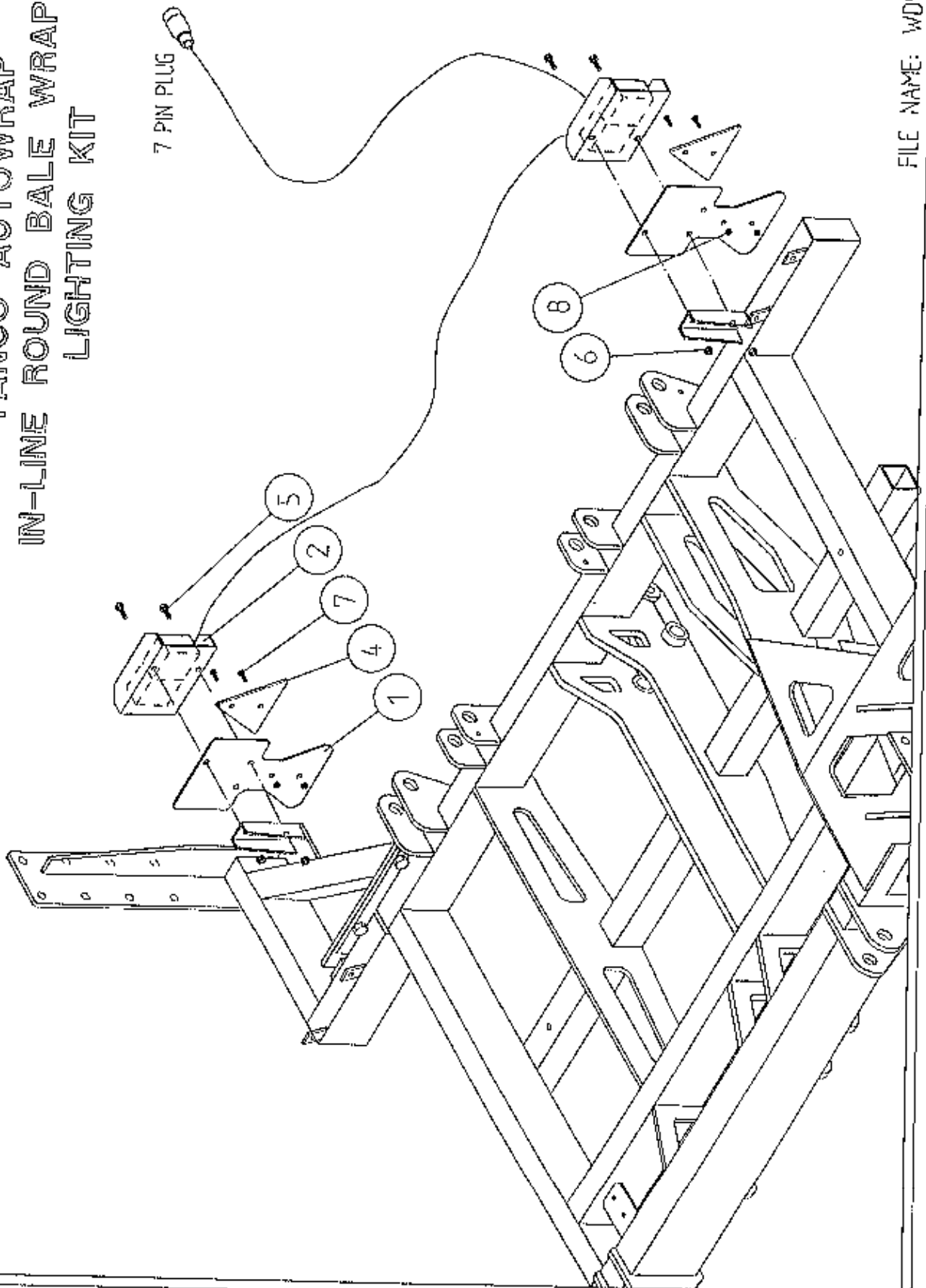
WD91HC15

TANCO AUTOWRAP
INLINE ROUND BALE WRAPPER
BALE RAMP HYDRAULIC COMPONENTS

PARTS LIST

ITEM NO.	DESCRIPTION	QTY	PART NO
1	BALE RAMP CYLINDER	1	Z01-01-IL58
2	ACCUMULATOR	1	Z01-01-AW
3	1/2" DOWTY WASHER	2	Z01-04-03
4	1/2" x 3/8" ADAPTOR	2	Z01-06-06-08
5	3/8" MALE/FEMALE 90 ELBOW	1	Z01-14-015
6	3/8" SPEED CONTROL VALVE	1	Z01-03-1042
7	3/8" DOWTY WASHER	4	Z01-04-02
8	3/8" MALE/MALE ADAPTOR	2	Z01-06-06-06
9	24" ST/90 3/8" D/W HOSE	1	Z38-R2-24-S9
10	1/2" MALE END Q/R COUPLING	1	Z01-15-081

TANCO AUTOWRAP
IN-LINE ROUND BALE WRAPPER
LIGHTING KIT



FILE NAME: WD91PL 9

**TANCO AUTOWRAP
IN-LINE ROUND BALE WRAPPER
LIGHT MOUNTING KIT
PARTS LIST**

ITEM NO:	DESCRIPTION:	QTY:	PART NO:
1	LIGHT MOUNTING PLATE	1	WD91-195
2	LIGHT CLUSTER R.H.S.	1	Z05-30R
3	LIGHT CLUSTER L.H.S.	1	Z05-30L
4	TRIANGULAR REFLECTOR	2	Z04-62
5	M8 x 30mm SET	4	Z26-041S
6	M8 LOCKNUT	4	Z23-08
7	M16 x 20mm SET	4	Z13-15
8	M6 LOCKNUT	4	Z23-08

EC DECLARATION OF CONFORMITY

ACCORDING TO DIRECTIVES 89/392/336/EEC AS AMENDED.

Manufacturer:

TANCO ENGINEERING CO LTD
BAGENALSTOWN
CO CARLOW
IRELAND

CERTIFIES THAT THE FOLLOWING PRODUCT:

AUTOWRAP

MODEL: 2010 SERIES IN LINE

SERIAL NO.: D2600 - D5000

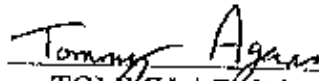
To which this declaration relates, corresponds to the essential requirements of the Directive 89/392/336/EEC as amended.

To conform to these essential health and safety requirements, the provisions of the following harmonised standards were particularly considered:

EN 292 - 1,2, EN 294, EN 1152, prEN 703, prEN 811, prEN 1553, prEN 982.

DATE: 01/02/00

SIGNATURE:


TOMMY AGARS
TECHNICAL MANAGER