

# MX-700-SEATED VERSION IC



**OPERATOR AND MAINTENANCE MANUAL  
SPARE PARTS LISTS INCLUDED**



SERIAL NUMBER: 1229911 & UP

Printed in Canada



## **3-YEAR LIMITED WARRANTY ON AC-POWERED PRODUCTS, STOCK CHASERS AND TRAILERS 2-YEAR LIMITED WARRANTY ON DC-POWERED PRODUCTS AND OTHER MOTREC PRODUCTS**

Motrec warrants to the original purchaser that its products are free from defects in parts and workmanship.

**STARTING DATE OF WARRANTY.** The present terms and conditions of the Motrec Limited Warranty apply to new Motrec products only and do not replace any pre-existing warranty. The warranty period is effective from the date the purchaser registers the product, provided it is registered within thirty (30) days of reception and in conformity with Motrec's registration process.

**REGISTRATION.** IMPORTANT: AS A PURCHASER OF A MOTREC PRODUCT, IT IS IMPORTANT THAT YOUR PRODUCT BE REGISTERED UNDER YOUR NAME AS REQUIRED BY MOTREC'S PRODUCT REGISTRATION PROCEDURE. PLEASE ASK YOUR MOTREC DEALER TO REGISTER YOUR PRODUCT. MOTREC'S LIMITED WARRANTY WILL BECOME EFFECTIVE AT THE TIME OF PRODUCT REGISTRATION. IF YOU FAIL TO REGISTER YOUR PRODUCT WITHIN THE THIRTY (30) DAYS, THE WARRANTY WILL NOT BE APPLICABLE. IF YOU PURCHASED THE PRODUCT DIRECTLY FROM MOTREC AND NOT FROM A MOTREC DEALER, YOU MUST REGISTER YOUR PRODUCT FOLLOWING THE INSTRUCTIONS BELOW (CLAUSE 3) <https://www.motrec.com/registration/>

**DEFECTS.** Subject to the terms and conditions described below, parts, components or accessories installed on the product by Motrec which fail under normal usage within the warranty period, and that are proven to be defective, will be repaired or replaced without charge for parts or labor unless stated otherwise herein. This is Motrec's sole liability under this Warranty. The warranty excludes items described in (Clause 6). Motrec reserves the right to require that all parts or components claimed to be defective be returned for inspection and verification of defect. The purchaser is responsible for any and all shipping fees of any and all parts or components that it alleges to be defective. In the event the part is still under warranty and confirmed defective after inspection by Motrec, the part return freight would be credited.

**WARRANTY SERVICES.** All warranty services must be rendered by authorized Motrec distributors and approved in writing by Motrec prior to initiating any repairs or adjustments. Motrec parts must also be used when performing the warranty otherwise the warranty will be voided. All approved warranty services will be paid for based on standard rates established by Motrec. Rather than replace or repair parts or components, Motrec may, at its discretion, replace the product or refund a prorated amount of its purchase price (based on service time, wear and tear) upon return of the defective product.

**AUTHORIZATION PROCESS.** No product shall be returned to Motrec without its prior authorization. All warranty claims must be disclosed to Motrec or its authorized distributor as soon as the purchaser is aware of a suspected defect or any event susceptible to give rise to a claim under the Motrec Limited Warranty. All claims must be processed through an authorized Motrec distributor using the warranty claim procedure approved by Motrec.

**THE ABOVE TERMS AND CONDITIONS REPRESENT THE ONLY REPRESENTATIONS MADE BY MOTREC IN RELATION TO ITS PRODUCTS. MOTREC DOES NOT PROVIDE ANY OTHER PARTICULAR WARRANTY TO THE USER OF ITS PRODUCTS. MOTREC DOES NOT MAKE ANY EXPRESS OR IMPLIED WARRANTIES OR REPRESENTATION WITH RESPECT TO ANY RESULT, PERFORMANCE OR DURABILITY EXPECTED FROM THE USE OF ANY OF ITS PRODUCTS. MOTREC EXCLUDES AND DECLINES ANY OTHER WARRANTY OF SUITABILITY OR OF FITNESS FOR A PARTICULAR PURPOSE, WOULD THEY BE PROVIDED BY LAW, BY CONTRACT OR OTHERWISE.**

**PRODUCT MODIFICATIONS ARE PROHIBITED.** Motrec prohibits and disclaims any and all liability for any modification made to the product, including but not limited to, modifications that are susceptible to alter the weight distribution and stability of the product, increase its speed or affect its safety. Such modifications can cause serious personal injury or property damage for which Motrec disclaims and excludes any and all responsibility. It is the purchaser's responsibility to ensure that any technicians servicing the product are properly trained as required by OSHA (Occupational Safety and Health Administration: <https://www.osha.gov/>) and ANSI-B56 (American National Standards Institute: <https://webstore.ansi.org/default.aspx>). Service technicians shall read, understand and follow the instructions in the Motrec Owner's Manual before servicing the product. Only qualified and authorized personnel shall be permitted to maintain, repair, adjust and inspect the product.

**TRAINING.** It is the purchaser's responsibility to ensure that the driver or any person operating, using, maintaining or handling the product (or its accessories) is properly trained and instructed on the product's safety features and operation, including its stability. Operators shall read, understand and follow the safety and operating instructions in the Motrec Owner's Manual before driving the vehicle. Operators shall not be permitted to operate the product unless a complete and adequate training has been provided by the purchaser. Driving an electrical vehicle constitutes a hazard. The driver is responsible for the control of the product while driving and must always evaluate all unusual or particular situations that he or she may encounter while driving. The driver assumes the inherent hazards related to this activity. Motrec products are designed for off-road use only.

**EXCLUSION OF LIABILITY.** Motrec disclaims any liability for incidental or consequential damages, including, but not limited to, personal injury or property damage arising from misuse of the product, lack of maintenance or any defect in the vehicle.



**UNDER NO CIRCUMSTANCE WILL MOTREC BE LIABLE FOR ANY DAMAGE, WHETHER DIRECT, INDIRECT OR OTHERWISE, RESULTING FROM THE USE OF ITS PRODUCTS, EVEN IF MOTREC OR ONE OF ITS REPRESENTATIVES WAS AWARE OF THE POSSIBILITY OF SUCH DAMAGE. ANY LIABILITY FOR LATENT DEFECT IS LIMITED TO THE PRICE OF THE PRODUCT.**

## **1. Definitions**

“Product”: The complete vehicle manufactured and/or assembled by Motrec, including its parts, components and accessories installed by Motrec.  
“Purchaser”: The party in whose name the product is originally registered at the time of purchase pursuant to the product registration procedure maintained by Motrec at that time, either: (a) the party to whom Motrec sold the product, if that party purchased the product for its own use, or (b) the customer of a Motrec dealer, who bought the product directly from such dealer.

## **2. Warranty Period**

Your Motrec product using the AC technology is covered by the Motrec Limited Warranty for a period of three (3) years or 3,000 hours of use, whichever comes first. This period of three (3) years starts on the date the product is registered, as mentioned hereinabove. This coverage does not apply to wearable parts, normal use or abusive usage of the product.

Your Motrec stock chaser is covered by the Motrec Limited Warranty for a period of three (3) years or 3,000 hours of use, whichever comes first. This period of three (3) years starts on the date the product is registered, as mentioned hereinabove. This coverage does not apply to wearable parts, normal use or abusive usage of the product.

Your Motrec trailer is covered by the Motrec Limited Warranty for a period of three (3) years. This period of three (3) years starts on the date the product is registered, as mentioned hereinabove. This coverage does not apply to wearable parts, normal use or abusive usage of the product.

Your Motrec product using DC or other technology is covered by the Motrec Limited Warranty for a period of two (2) years or 2,000 hours of use, whichever comes first. This period of two (2) years starts on the date the product is registered, as mentioned hereinabove. This coverage does not apply to wearable parts, normal use or abusive usage of the product.

## **3. Warranty Registration**

The warranty registration must be completed within thirty (30) days of purchase of the product. If registration is not completed within this time, the warranty will be voided. If you purchased the product from a Motrec dealer, please make sure the dealer has completed the registration. If you purchased the product directly from Motrec, please make sure to go to this link (<https://www.motrec.com/registration/>) and register your vehicle. In case of registration problems, please contact your Motrec representative.

## **4. Maintenance**

Motrec requires that scheduled maintenance be performed at the times shown in the Owner's Manual (Refer to the “Preventive Maintenance Schedule”). If this scheduled maintenance is not done and the product fails as a result of a failure to properly maintain it, repairs will not be covered under any warranty.

## **5. Warranty will be void if:**

- The product has been modified in any manner not approved in writing by Motrec
- The product has been overloaded beyond its rated capacity
- The product's maximum speed has been increased
- The product's motor controller parameters have been tampered without Motrec's authorization
- The product has been used abusively (including, but not limited to: improper use; twisted, bent, misaligned front or rear axles, signs of abusive use)
- The product has been involved in an accident
- The product has been transferred to a second owner without Motrec's authorization
- The product has been used in extreme environments (including, but not limited to: freezers, high moisture areas, corrosive environments, etc.)
- The product has had its serial number modified or altered
- The product has been repaired with non-Motrec parts without Motrec's authorization
- The preventive maintenance schedule was not followed as specified in the Motrec Owner's Manual

## **6. The following items are not covered by the Motrec limited warranty:**

- Batteries, chargers, charging system components, wheels (which may be covered by warranties from manufacturers)
- Internal combustion engines (which may be covered by warranties from manufacturers)
- Wearable parts (lights, bulbs, diodes & fuses, filters & spark plugs, lubricants, tires, wheel bearings, seats, brake pads and shoes)
- Wear and tear resulting from normal use
- Adjustments, including field set-up
- Damage or defects caused by using non-Motrec parts, components or accessories
- Shipping damage, be it caused during travel or loading / unloading procedures
- Shipping, customs and/or brokerage fees for warranty parts
- Towing fees, travel fees for technical support and repair, delays or time spent accessing a customer's facility, for locating a vehicle, for loading/unloading or for vehicle movement to a work area or to the dealership
- Damages that are the result of an impact, improper or excessive forces applied or improper use of the vehicle

**TABLE OF CONTENTS**

SAFETY WARNINGS FOR OPERATORS	6
MX-700 - VEHICLE CONTROLS	7
ELECTROMAGNETIC BRAKE	8
<b>MAINTENANCE</b>	<b>9</b>
SAFETY WARNINGS FOR SERVICE TECHNICIANS	10
DECALS AND LABELS	11
PREVENTIVE MAINTENANCE SCHEDULE - MOTREC I.C. UNITS	12
KUBOTA OPERATOR MANUAL REF	14
OIL GRADE CHART	15
OIL GRADE CHART	16
HYDRAULIC & PARKING BRAKES	17
FRONT AXLE AND STEERING	18
HYDROSTATIC PUMP – PORTS AND ADJUSTING SCREWS	19
<b>SPARE PARTS</b>	<b>20</b>
BODY	21
SLIDDING DOOR PLATFORM	22
PLATFORM RAILINGS	23
REAR DECK DOOR	24
RAIL POST WITH DOOR LATCH	24
SLIDDING DOOR	26
SITTED STATION IC VERSION	27
DIFFERENTIAL 30 : 1 PART NUMBER : 2170480330	28
FRONT AXLE	31
STEERING COLUMN ASSEMBLY	32
TOP STEERING LINKAGE (ASSY)	33
DIESEL ENGINE AND RELATED COMPONENTS	34
REAR AXLE TOP ASSEMBLY	36
ELECTRICAL DIAGRAM – MAIN CIRCUIT	38
HYDROSTATIC PUMP	41
MOTREC ILLUSTRATED ACCESSORIES	42

**INSTRUCTIONS**

## **SAFETY WARNINGS FOR OPERATORS**

- FAILURE TO OBEY THE FOLLOWING SAFETY RULES MAY RESULT IN SEVERE INJURY.
- It is the responsibility of the owner of this vehicle to train operators to ensure that they understand the operating characteristics of this vehicle, including training in vehicle stability, and obey the following safety rules and guidelines. Owner shall comply with OSHA and ANSI/ITSDF B56.8 & B56.9 Standards for vehicle use, safety rules, operator training and certification. Do not drive this vehicle unless you are a qualified operator.
- Do not drive this vehicle under the influence of drugs or alcohol.
- Do not drive this vehicle on public roads and highways. This vehicle is designed to be driven in buildings.
- The electrical system of this vehicle will make sparks which can ignite inflammable materials. Never use the vehicle in hazardous areas where there are inflammable materials, explosive dust or fumes in the air.
- Have your vehicle inspected regularly by trained personnel, and cease operation if a malfunction occurs.
- Do not open battery compartment to prevent battery explosion, acid splashing, severe damage to eyes or skin.
- Do not open motor compartment. Keep clear from moving, rotating(wheels, sheaves, etc) or lifting parts.
- Never carry more passengers than number allowed for this vehicle. Wait until all occupants are seated and holding on before moving. Always keep all body parts inside vehicle. Keep both hands on steering wheel.
- Do not exceed the vehicle cargo load capacity and gross trailing weight capacity, rated for flat hard even surface. Different operating conditions such as loose terrain or ramps reduce vehicle capacity.
- Avoid loose, unbalanced or top-heavy loads to keep a good stability and prevent overturn. Do not load cargo that can fall off the vehicle. Do not carry cargo that is longer, wider or higher than this vehicle.
- Always depress slowly the accelerator for smooth acceleration. Avoid stunt driving or horseplay.
- Avoid sharp turns, always slow down before turning, to prevent vehicle overturn or trailer jack knife. Vehicle is more sensitive to overturn and jack knife when traveling on inclines or when carrying a heavy load.
- Always drive straight up and down the face of an incline, never across the face, to prevent overturn and trailer jack knife. Drive slower and start applying brakes sooner on inclines to adjust for longer stopping distance.
- Use extra care and drive slowly in reverse, in congested areas or on wet or slippery ground.
- Keep to the right under normal conditions. Maintain a safe distance from all objects.
- Slow down and sound the horn when approaching a corner or other blind intersections.
- Before leaving the vehicle, park on a level ground flat surface, turn off all switches, set the forward/reverse switch to neutral, set the parking brake, remove the key. Do not park the vehicle on an incline.
- Before battery charging, park the vehicle in a well ventilated area set for. Do not operate it when charging. To interrupt a charging cycle, disconnect the AC plug; disconnecting the DC plug or a battery terminal, or operating the vehicle, could damage the charger and produce a spark, battery explosion and acid splashing.
- Use another driver to steer this vehicle while it is towed. Be sure the driver uses brakes when you slow or stop the towing vehicle. Do not exceed 5 MPH or carry any passenger while towing this vehicle.

## **MX-700 - VEHICLE CONTROLS**

### **! WARNING !**

The accelerator and brake controls of this vehicle are different than a standard car. Read carefully the steering, accelerator, brake and safety instructions before operating the vehicle. Do not drive this vehicle unless you are a certified operator as required by OSHA.

### **Horn button**

The horn button is located on top of the throttle lever (joystick) or could also be located on a toggle switch near the steering.

### **Brake**

This vehicle has 3 braking modes :

1. Normal braking uses the regenerative braking of the drive motor when releasing the throttle.
2. For emergency braking, release footswitch. It will apply hydraulic pressure to the drum brakes and will stop the vehicle abruptly.
3. Parking brake is automatically applied when the vehicle do not move or when power is cut.

### **Accelerator**

Move the throttle lever towards the direction you want to move and the vehicle will travel in the same direction. Move forward the lever and will go forward, move reverse the lever and will go reverse. The speed is proportional to the travel of the lever. The lever must automatically return to "STOP" indication when released. If not, stop using the vehicle until an inspection and repair of the entire throttle system is performed.

### **Key switch**

Turn the key switch clockwise for ON position. Remove the key before leaving the vehicle.

### **Steering**

Always depress the footswitch before turning the steering wheel. The footswitch turns on a hydraulic valve to steer the wheels according to the driver position.

**Latch all doors before operating the vehicle.**



## **ELECTROMAGNETIC BRAKE**

This vehicle could be equipped with electromagnetic parking brake. This spring applied and electrically released brake keeps the vehicle stationary when it comes to a stop or power is cut. When the accelerator is depressed, the brake is released automatically.



If the vehicle is not powered and must be moved, the following steps must be done to avoid any damage to the vehicle:

- 1- Remove the knobs located outside the electrical components compartment.



- 2- Screw the knobs behind the electromagnetic brake to manually release the brake.



When the vehicle is ready to be used, the knobs must be removed from the electromagnetic brake and put back to their storage location.



**MAINTENANCE**

## **SAFETY WARNINGS FOR SERVICE TECHNICIANS**

FAILURE TO OBEY THE FOLLOWING SAFETY RULES MAIN RESULT IN SEVERE INJURY.

Owner shall comply with OSHA and ANSI/ITSDF B56.8 & B56.9 Standards for vehicle maintenance.

Only qualified and authorized personnel shall be permitted to maintain, repair, adjust and inspect carriers, vehicles, tractors, and batteries.

Before any maintenance work, park the vehicle on flat level surface, turn off all switches, remove key, lift wheels off the ground and secure with jack stands of adequate capacity. Don't connect charger.

Keep clear from moving parts such as tires, sheaves and motor.

Follow the maintenance instructions applicable to the type of repair, maintenance, or service.

Always wear a face shield and gloves when working around batteries.

Before opening the battery compartment, disconnect the charger, turn off all switches and remove the key. Batteries emit highly explosive gases which greatly increase when charging; do not disturb connections or produce sparks around batteries to avoid a battery explosion and acid splashing. Battery acid causes severe damage to eyes or skin. Flush contaminated area immediately with water.

Use insulated tools to avoid sparks that can cause battery explosion and acid splashing.

Use two counteracting tools, double-wrench technique, when disconnecting or tightening terminals on the battery and the speed controller to avoid cracking the terminal or battery post welds.

Before cleaning or replacing a battery, charger, speed controller, contactor, relay, diode, or any other component in the power circuit, always disconnect the charger, turn off all switches, remove the key, wear a face shield and gloves, identify battery polarity and disconnect battery leads, discharge the capacitor in the controller with a 10 ohms, 25 W resistor for a few seconds across B+ and B-.

After cleaning, the power must not be reapplied until terminal areas are thoroughly dry.

On EE-Rated vehicles make sure that the control box is sealed, the static strap makes good contact with the ground, the motor is sealed by bands, the cable protectors are properly installed.

Keep cables and wires clear from mechanical and rubbing action. Make sure that cable insulation is free from cutting or visible damage. Make sure that EE-Rated cable protectors are properly installed.

Before replacing a fuse or circuit breaker, identify the cause of failure and repair.

Programmable controllers must be programmed using the parameter settings in this service manual, before connecting the motor, to avoid sudden vehicle movement and accident.

Do not try to increase motor speed by changing parameter settings in the speed controller; it can cause accident and severe damage to the motor.

SEPEX speed controls are protected by a diode in the power circuit to filter inductive loads in the event of a sudden power interrupt. Some speed controllers require a diode to filter inductive loads on the KSI input. Removing the diodes will cause the speed control failure.

Before resuming maintenance operations, inspect safety warnings stickers and replace any if damage is found and part of the text can't be read.

Check decals and labels, see "DECAL AND LABELS" page.

## DECALS AND LABELS

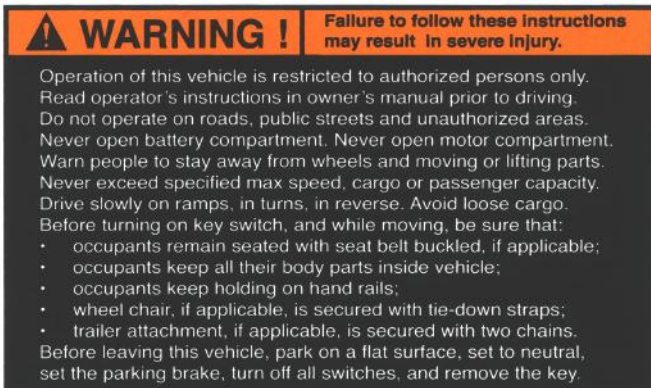
### ! CAUTION !

The images included in this section depict the decals/markings installed on the vehicle. It is of the utmost importance that these decals/markings remain unaltered and readable. Else, the sticker or the part bearing the marking has to be replaced.

Dashboard security warning label:  
# 5100000002



General security warning label:  
# 5100000001



When an emergency push button is installed, this label is required (located under push button): # 3109800006



When a disconnect handle is installed, this label is required (located in front of handle):  
# 4800012J



Respectively, key switch markings, forward/reverse selector markings and light switch marking:



# 266211



# 2819321003



# 1269004

## PREVENTIVE MAINTENANCE SCHEDULE - MOTREC I.C. UNITS

**! WARNING !** Read safety instructions before maintenance operations to avoid severe injury.

**! WARNING !** Maintenance operations must be made by properly trained service technicians.

Follow OSHA and ANSI B56 regulations.

**Change engine oil after first 8 hours of use. S/N: \_\_\_\_\_ Hour Meter reading: \_\_\_\_\_**

DESCRIPTION	PERIOD	ESTIMATED TIME (MINUTES)				CHECK
		SHIFT START	100H	200 H	1000 H	YEAR
Stop engine, check engine oil level.		3				
Check vehicle for visual damage		2				
Examine floor around and beneath unit for signs of transmission oil, differential oil, brake fluid leaks.		2				
Turn steering, check for hard steering, excessive free play, or unusual sound when turning.		1				
Check accelerator for free & smooth movement, and automatic spring-return to stop.		2				
Shift in neutral, before starting engine.		1				
Check reverse alarm, horn, strobe light.		2				
Check brake pedal travel and parking brake for secure hold. Start slowly and check service brake.		2				
Check tire pressure, see pressure rating on tire			5			
Check transmission & hydraulic oil level, if appl.			5			
Check radiator coolant level, if applicable.			2			
Check master cylinder fluid level (DOT 3)			2			
Check brake pedal travel			1			
Turn front wheels straight, check steering play			1			
Check parking brake, requires 75 lbs. force to apply			1			
Check brake lines and drive for leaks			5			
Check fuel pipe, hose, clamps for damage & leaks			5			
Check radiator fan belt, CVT belt, if applicable			3			
Service air filter, check intake pipe & clamps			5			
Check muffler, exhaust pipe, clamps, spark arrester			5			
Air cooled engines only, <b>change engine oil</b>			20(X)			
Water-cooled engines only, <b>change engine oil</b>				X(20)		
WARNING LABELS & MARKINGS				2		
Inspect wheel bearings and king pins for play				8		
Inspect steering suspension linkages & frame.				10		
Check pedal & master cylinder linkages for wear				10		
Check service brake linings and linkages for wear				15		
Check Spark Plugs				20		
Change Oil Filter				20		
Change air filter				10		
Clean radiators and engine shrouds				20		
Lubricate the vehicle				5		
Service fuel filter, LP vaporizer & regulator					20	
Check engine valve clearance & seats					40	
Check ignition wires, tighten all nuts and bolts					20	
Change differential oil, transmission oil & filter					20	
Clean & repack front hubs					20	
Flush/change brake fluid						30
Flush/change radiator coolant, if applicable						30

TOTAL TIME (MINUTES)	15	60	120	120	60	
----------------------	----	----	-----	-----	----	--

**KUBOTA OPERATOR MANUAL REF**

For detailed maintenance and operation instruction of the diesel engine see the Kubota operator's manual annexed at the end of the Motrec manual

For engine spare part contact your local Kubota dealership

### **OIL GRADE CHART**

Vehicle system	Oil grade
Engine	10W30
Rear wheel drive	ISO VG 150 SAE 80W90 according MIL-L-2105C or API GL5
Hydrostatic transmission	ISO VG 46



**OIL GRADE CHART**

Vehicle system	Oil grade
Differential	MOBILUBE 1 SHC 75W-90
Brakes	DOT 3, concurring with DMVSS116 standard
Power steering	ISO VG46
Bearings, tie rods, pivots	Grease NLGI #2 GC-LB

## **HYDRAULIC & PARKING BRAKES**

FOR DIRECT DRIVE MODELS

Revision 2014-08-19

### **DRUM BRAKES**

Remove brake drums and check lining wear. Replace shoes and springs if the lining thickness is 1/16" (2mm) or less. Turn the brake adjustment to reduce the clearance between lining and drum. Wheels must turn free when the pedal is released.

### **DISC BRAKES**

Check pad linings. Replace pads if lining thickness is 1/16" (2 mm) or less.

### **PARKING BRAKE**

Replace cables and stoppers if cable play exceeds 1/8" (4mm).

Wheels must turn freely when the parking brake is released.

Once cable play has been checked and/or adjusted, turn the knob on the brake lever until a force of 30-40 Lbs or 14-18 kg is required on the handle to set the parking brake. Tighten the locking screw.

### **BRAKE PEDAL**

If the brake pedal becomes soft or spongy, air may have entered the hydraulic system and the brake system has to be bled:

1. fill the master cylinder with brake fluid (DOT-3);
2. bleed front calipers one at a time by having someone applying a steady pressure on the brake pedal, and close the bleeder before allowing the brake pedal to return to up position;
3. fill the master cylinder with brake fluid (DOT-3);
4. bleed rear wheel brakes one at a time, following the same procedure;
5. fill the master cylinder with brake fluid (DOT-3);
6. clean every fitting and line, remove traces of oil;
7. apply a continuous pressure on the brake pedal for about five minutes ;
8. Finally, inspect brake lines and fittings for leaks ;

## **FRONT AXLE AND STEERING**

### **! CAUTION !**

Before maintenance, turn off all switches, set to neutral, set parking brake, remove the key, and raise the front end of the vehicle supporting it with two jack stands of adequate capacity

### **STEERING INSPECTION**

- Check tire inflation pressure, suspension components, tie rods straightness, tie rod ends play (wear), play (wear) in wheel bearings, kingpins and bushings.

### **REPLACING & ADJUSTING THE STEERING GEAR**

- Remove the pitman arm;
- The steering box makes 6.5 turns, center the steering gear (3.25 turns from either side);
- Align the front wheel straight. Install the pitman arm.

### **TOE-IN ADJUSTEMENT**

- With the wheels in straight forward direction, measure the inside (left to right) distance between the front tires, at the front and rear of the tires;
- Turn the rear tie rod until the distances are equal and tighten the two lock nuts on the tie rod.

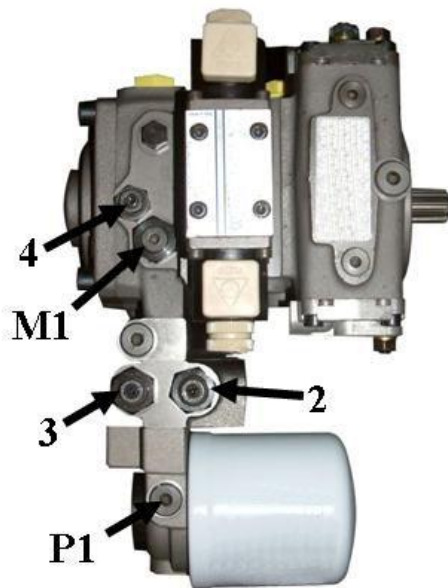
### **REMOVING & GREASING OF FRONT HUBS, required once-a-year**

- Remove dust cap and cutter pin, unscrew nut, remove hub;
- Inspect bearings and races for wear and replace worn bearings;
- Replace the seal;
- Pack the hub with wheel bearing grease and re-assemble.

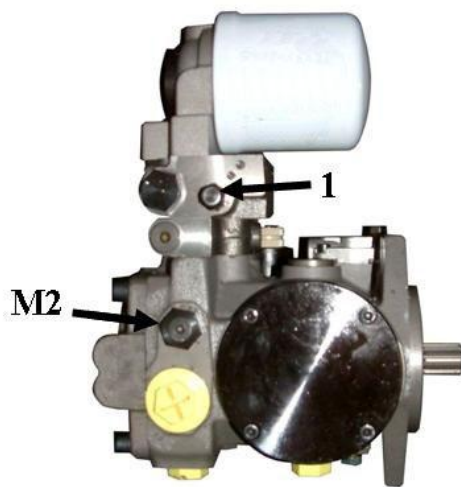
### **ADJUSTING FRONT HUBS**

- Tighten spindle nut to 30 ft-lb to seat the bearing and back off the nut to the next slot;
- Install a new cutter pin and the dust cap.

## HYDROSTATIC PUMP – PORTS AND ADJUSTING SCREWS

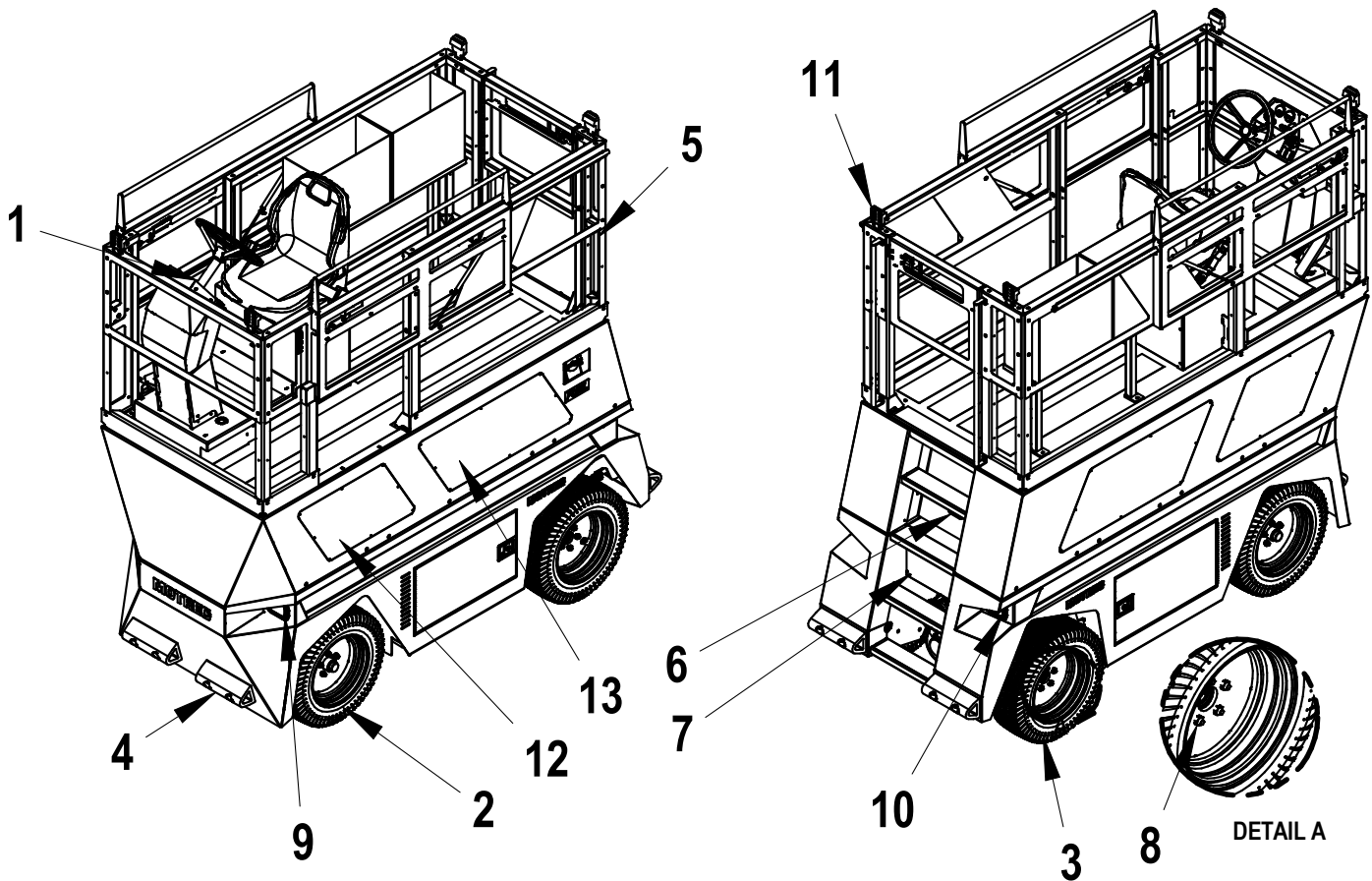


1	MACHINE RPM START-UP ADJUSTING SCREW Turn CW to increase RPM
2	POWER LIMITER ADJUSTING SCREW Turn CW to increase power
3	MINIMUM CHARGE PRESSURE ADJUSTING SCREW Turn CW to increase pressure
4	CHARGE PRESSURE ADJUSTING SCREW Turn CW to increase pressure
P1	CHARGE PRESSURE INTAKE
M1	HIGH PRESSURE SIDE A
M2	HIGH PRESSURE SIDE B



**SPARE PARTS**

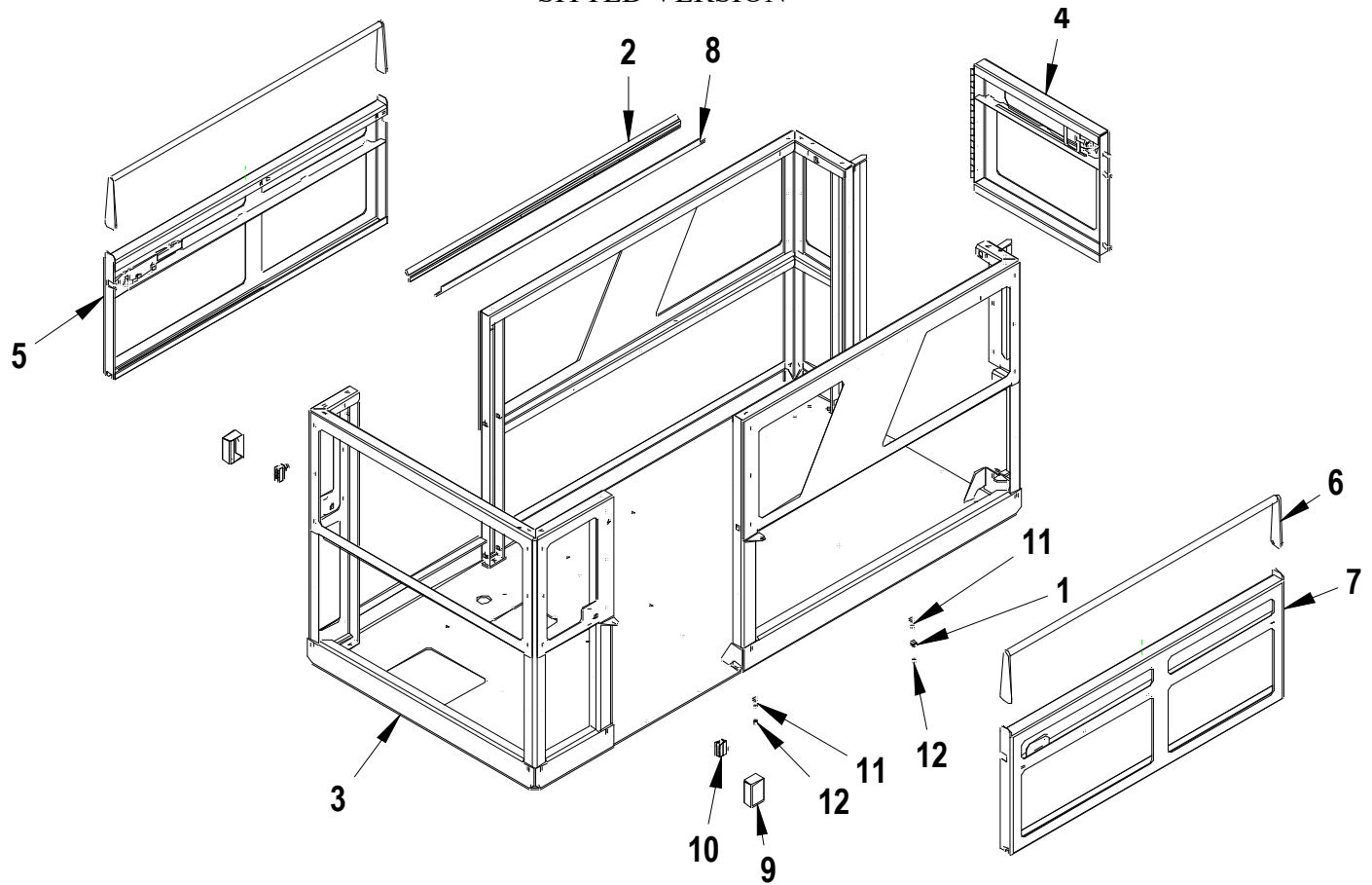
## BODY



REF.	#	PART NO.	DESCRIPTION
1	1	2206701003	SEE STEERING AND CONTROLS ASSEMBLY PAGE
2	2	2223662003	PNEUMATIC TIRE ON HEAVY DUTY WHEEL FOR STEERING AXLE
	2	2223700003	SOLID RUBBER WHEEL, TRACT
3	2	2223700001	PNEUMATIC TIRE ON HEAVY DUTY WHEEL FOR DRIVE AXLE
	2	2223700002	SOLID RUBBER WHEEL, TRACT
4	4	2311000007	RUBBER BUMPER
5	1	2333700017	SEE THE DECK PAGE ASSEMBLY
6	1	2339700004	LADDER PROTECTOR
7	1	2806700002	ELECTRICAL COMPONENT DOOR
8	20	2910000019	WHEEL NUT 1/2-20X13/16"
9	2	3111000061	LED CUSTOM FRONT LIGHT GROMMET MOUNT
10	2	3111000062	LED CUSTOM REAR LIGHT GROMMET MOUNT
11	4	3111000071	3X3 LED WORKLIGHT
12	2	6380700012	SPACER ACCES PANNEL
13	2	6380700023	SPACER ACCES PANNEL GAZ/SIT DOWN

## **SLIDING DOOR PLATFORM**

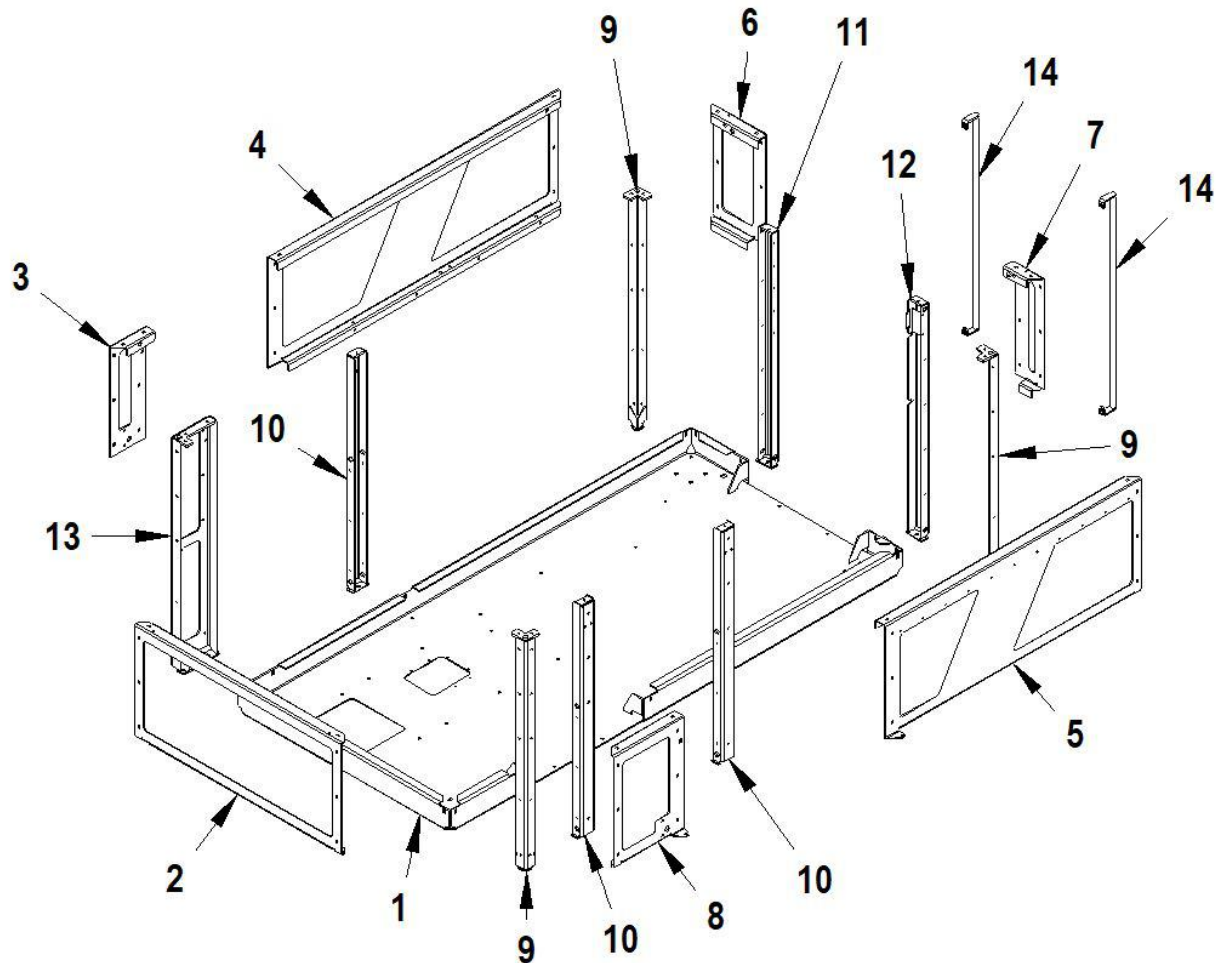
### **SITTED VERSION**



<b>REF.</b>	<b>QTY</b>	<b>PART NO.</b>	<b>DESCRIPTION</b>
1	2	2100081208-RF	PLASTIC BUSHING
2	2	2109700002	SLIDING GUIDE RAIL
3	1	-	SEE PLATFORM RAILINGS -PAGE BELOW
4	1	2360702002	SEE REAR DOOR -PAGE BELOW
5	1	2362704001K	SEE SLIDING DOOR KIT (RIGHT SIDE) -PAGE BELOW
6	2	2362704008	SLIDING DOOR HANDLE
7	1	236270410K	SLIDING DOOR KIT (LEFT SIDE) -PAGE BELOW
8	2	2379704001	GUIDE RAIL SPACER
9	2	2392704001	LIMIT SWITCH PROTECTION COVER
10	2	3109000043	LIMIT SWITCH (SENSOR)
11	4	714132080010	SHOULDER BOLT 1/2" X 5/8", 3/8-16 UNC
12	4	731118060000	NYLON NUT 3/8-16 UNC

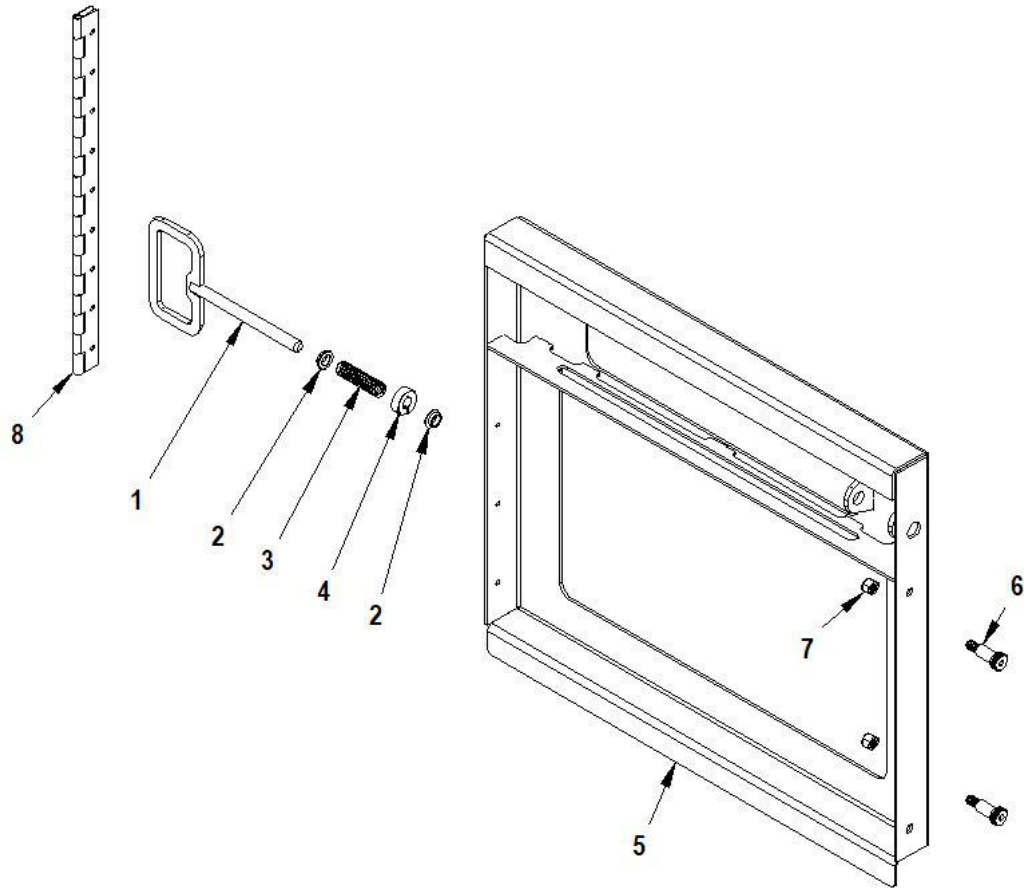


**PLATFORM RAILINGS**  
FOR SLIDING DOOR PLAT-  
FORM



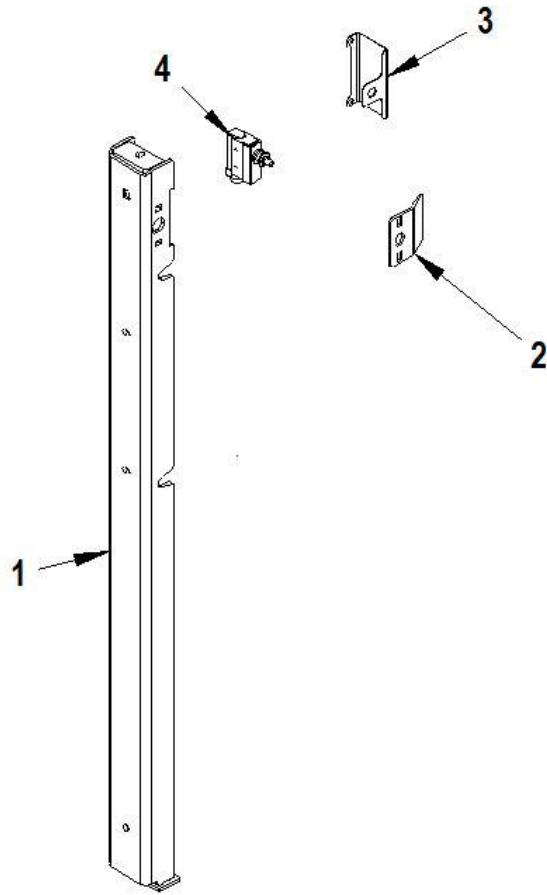
<b>REF.</b>	<b>QTY</b>	<b>PART NO.</b>	<b>DESCRIPTION</b>
1	1	2333700009	FLOOR STRUCTURE
2	1	2333700102	FRONT GUARD
3	1	2333704006	FRONT RIGHT SIDE GUARD
4	1	2333704006	REAR RIGHT SIDE GUARD- PAGE BELOW
5	1	2333704007	REAR LEFT SIDE GUARD- PAGE BELOW
6	1	2333702152	REAR RIGHT BACK GUARD
7	1	2333702162	REAR RIGHT BACK GUARD
8	1	2333704005	FRONT LEFT SIDE GUARD
9	3	2333700021	CORNER POST
10	3	2333704001	SLIDING DOOR POST
11	1	2333702031	RAIL POST RIGHT HAND INSWING
12	1	2333702011K	RAIL POST WITH DOOR LATCH - PAGE BELOW
13	1	2333704009	FRONT RIGHT CORNER POST
14	2	2803700001	REAR HANDLE

## REAR DECK DOOR



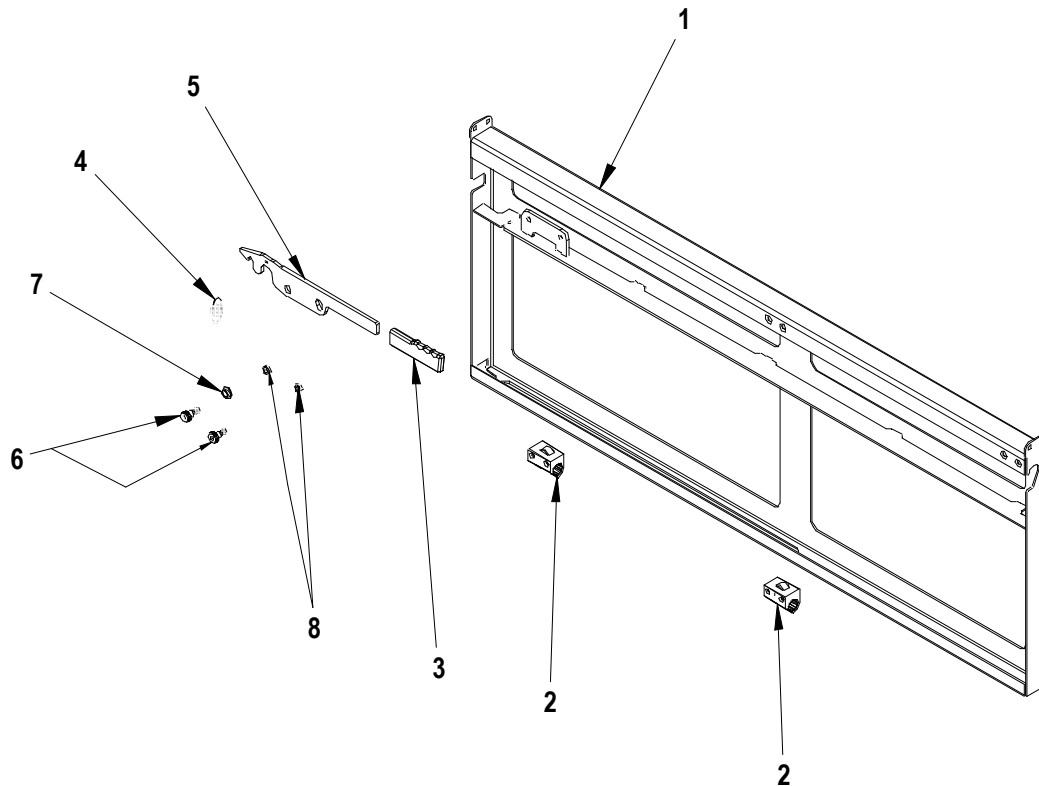
<i><b>REF.</b></i>	<i><b>QTY</b></i>	<i><b>PART NO.</b></i>	<i><b>DESCRIPTION</b></i>
1	1	2366700001	LOCKING HANDLE
2	2	2100081004-RF	BUSHING
3	1	2662002-T448HD	SPRING
4	1	2915008001	CLAMP-ON SHAFT COLLAR
5	1	2362702002	WELDED DOOR ASSEMBLY
6	2	714125080100	S.S SHOULDER BOLT 3/8-16 UNC
7	2	731118060000	NYLON NUT 3/8-16-UNC
8	1	2808700001	DOOR HINGE

## RAIL POST WITH DOOR LATCH



<b>REF.</b>	<b>#</b>	<b>PART NO.</b>	<b>DESCRIPTION</b>
1	1	2333702011	RAIL POST DOOR LATCH MODEL
2	1	2366270019	S.S. DOOR LATCH
3	1	2392700001	DOOR SWITCH BRACKET
4	1	3109000043	LIMIT SWITCH

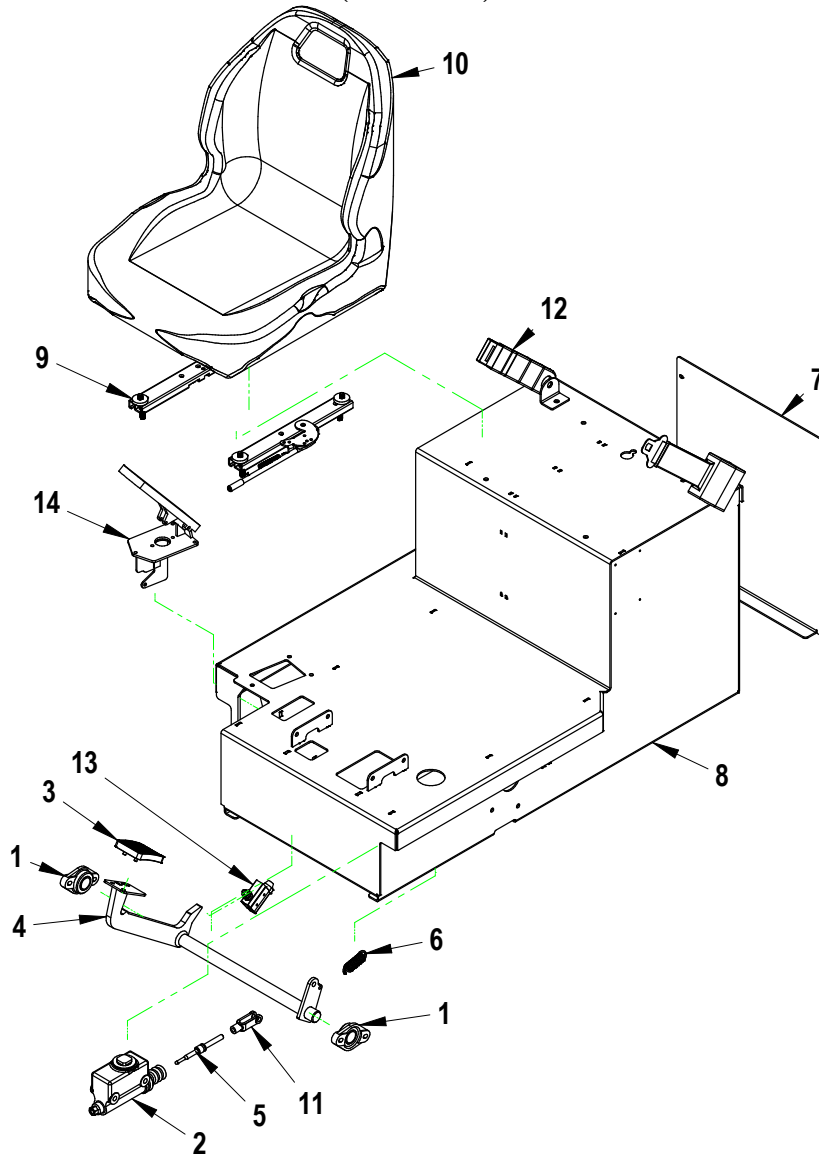
## SLIDING DOOR



<b>REF.</b>	<b>QTY</b>	<b>PART NO.</b>	<b>DESCRIPTION</b>
1	1	2362704001	SLIDING DOOR FRAME (FOR RIGHT SIDE)
	1	2362704010	SLIDING DOOR FRAME (FOR LEFT SIDE)
2	2	2109700001	HYBRID BEARING
3	1	2803000020	HAND GRIP
4	1	2190448001	SPRING
5	1	2366704001	LOCKING HANDLE
6	2	714112080006	S.S. SHOULDER BOLT 1/2" X 3/8"
7	1	2100081004-RF	PLASTIC BUSHING
8	2	734118060000	JAM NUT 3/8-16 UNC

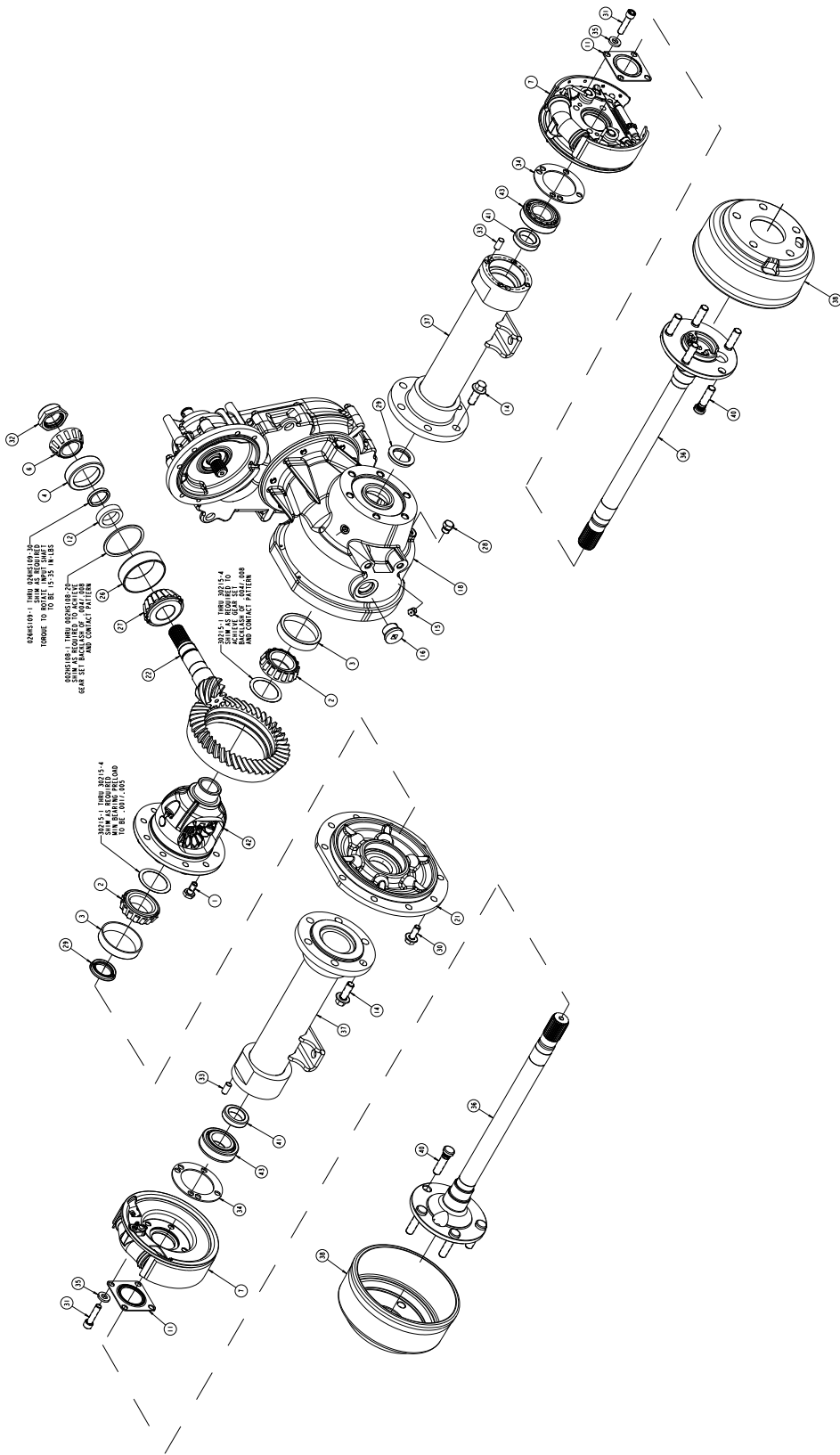
## **SITTED STATION IC VERSION**

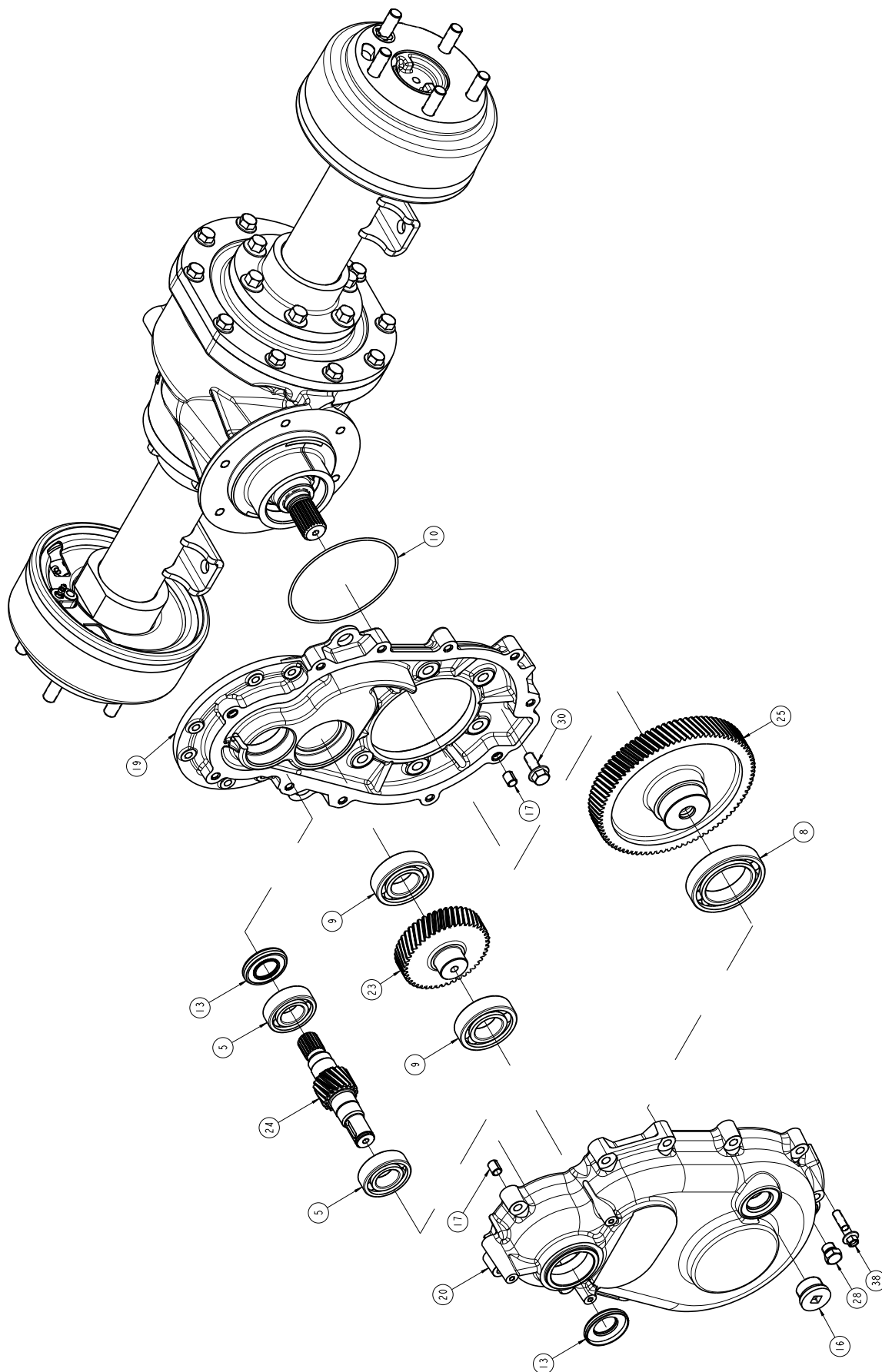
(2339701004)



REF.	PART NO.	DESCRIPTION
1	2106016001	PLASTIC FLANGE BEARING, 1 DIA
2	2125000001	MASTER-CYLINDER
3	2131100002	RUBBER FOR BRAKE PEDAL
4	2131700006	BRAKE PEDAL, MX-700
5	2133280002	PUSH ROD, MASTER-CYL 3/4
6	2190000003	SPRING
7	2339700017	ACCESS PLATE
8	2339701001	DRIVER'S STATION (WELDED ASSY)
9	1005002	SLIDE ADJUSTERS FOR SEAT
10	2385000009	BUCKET SEAT, 21 IN HEIGHT
11	2910000015	CLEVIS YOKE 3/8-NF
12	3005004K-1	1 RETRACTABLE BELT INSTALL KIT
13	3109000043	BRAKE SWITCH
14	6685001	ACCELERATOR PEDAL

**DIFFERENTIAL 30 : 1**  
**PART NUMBER : 2170480330**





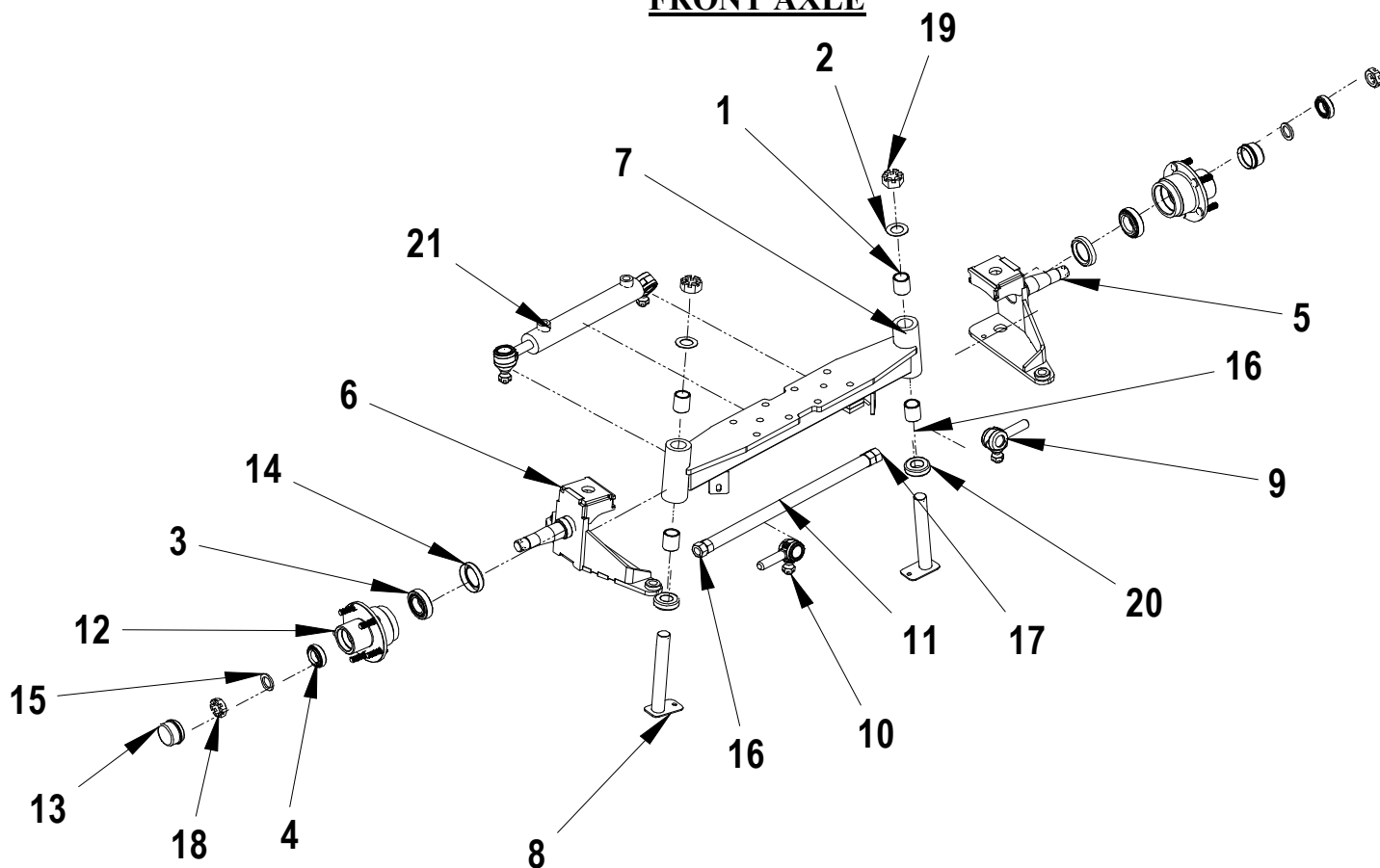


<b>REF.</b>	<b>PART NO.</b>	<b>DESCRIPTION</b>	<b>QTY.</b>
	<u>2170480330</u>	<u>Kit assembly, differential ratio 30 : 1</u>	<u>1</u>
1	2179480301	SCREW DRIVE GEAR	10
2	2179480302	CONE, BEARING, TAPERED ROLLER, 1.625 SHAFT	2
3	585911	CUP, BEARING, TAPERED ROLLER, 2.892 BORE	2
4	585938	CUP, BEARING, TAPERED ROLLER, 2.532 BORE	1
5	484003	BEARING, BALL, SINGLE ROW, 6205	2
6	2108000002	CONE, BEARING, TAPERED ROLLER, 1.188 SHAFT	1
7	2179480307	ASSEMBLY, BRAKE, 7 X 1.75, HYDRAULIC	2
8	2179000077	BEARING, BALL, SINGLE ROW, 6010	1
9	2179000078	BEARING, BALL, SINGLE ROW, 6206	2
10	002HH108	O-RING, 4.487 X .103	1
11	2179480311	SEAL, GREASE	2
12	002HS109-1	SPACER, 1.205 X 1.700 X .895	1
13	2104000011	SEAL, OIL, .948 SHAFT, 1.850 BORE	2
14	012HM124	SCREW, FLANGE HEAD, M12-1.75 X 32 MM	12
15	012HN140	VENT, 1/8 NPTF	1
16	026HG100	FILL PLUG, SQUARE SOCKET, 3/4 PORT	2
17	026HP105	BUSHING, DOWEL, .313 X .500	2
18	030CH133	HOUSING, CARRIER	1
19	030CH134-1	HOUSING, GEARBOX	1
20	030CH136-1	COVER, GEARBOX	1
21	030CV101	COVER, CARRIER, FINSH	1
22	030GA102X	ASSEMBLY, GEAR AND PINION, 6.143 RATIO	1
23	030GS110	GEAR, HELICAL, INTERMEDIATE, 47T	1
24	030GS112	SHAFT, INPUT, 18T	1
25	030GS116	GEAR, HELICAL, OUTPUT, 87T	1
26	030HA100	CUP, BEARING, TAPERED ROLLER, 3.000 BORE	1
27	030HB100	CONE, BEARING, TAPERED ROLLER, 1.375 SHAFT	1
28	030HG101	DRAIN PLUG, MAGNETIC, O-RING, 1/2-20	2
29	030HH109	SEAL, OIL, 1.173 SHAFT, 1.687 BORE	2
30	030HM106	SCREW, FLANGE HEAD, M10 X 1.5	16
31	2179480002	SCREW, CAP, SOCKET HEAD	8
32	030HN101	NUT, PINION, M30-1.5	1
33	030HP100	PIN, DOWEL	4
34	2179480334	RETAINER, BEARING, WHEEL	2
35	2179480001	WASHER	8
36	2173480003	SHAFT, AXLE, FLANGED, FINISH	2
37	030TA124-1X	ASSEMBLY, TUBE, FINISH	2
38	2179480338	DRUM, BRAKE, FINISH	2
39	070HM251-3	SCREW, FLANGE HEAD, M8-1.25 X 35MM	11
40	2179300010	BOLT, WHEEL, 1/2-20 X 1.875	10
41	2179000009	RING, RETAINING, WHEEL BEARING	2
42	A20DA101X	ASSEMBLY, CASE, DIFFERENTIAL	1
43	2179480343	BEARING, ROLLER, TAPERED	2

#### **TORQUE CHART**

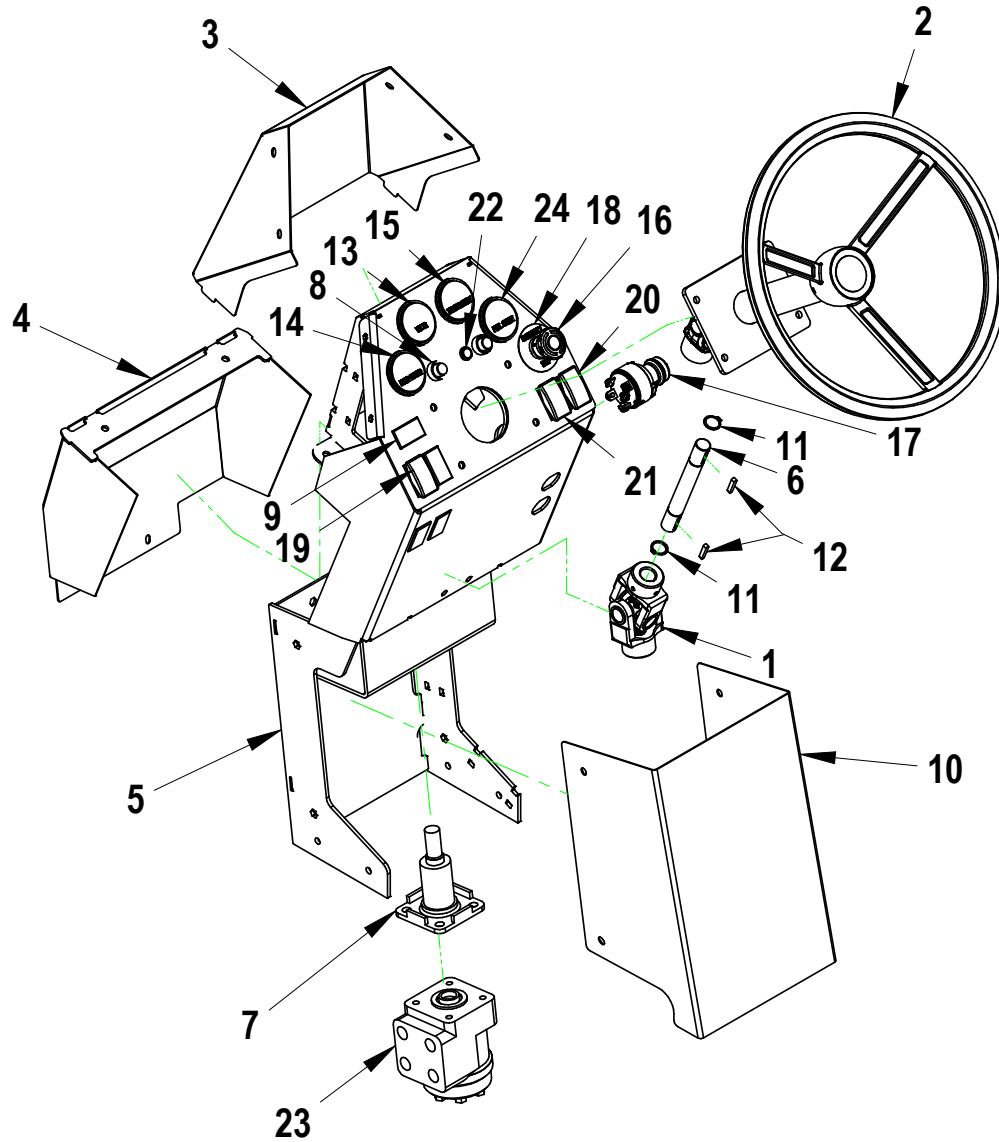
<b>PART NO</b>	<b>DESCRIPTION</b>	<b>TORQUE VALUE</b>
2179480301	SCREW DRIVE GEAR	70-80 FT-LBS
012HM124	SCREW, FLANGE HEAD, M12-1.75 X 32 MM	70-80 FT-LBS
026HG100	FILL PLUG, SQUARE SOCKET, 3/4 PORT	40-50 FT-LBS
030HG101	DRAIN PLUG, MAGNETIC, O-RING, 1/2-20	9-14 FT-LBS
030HM106	SCREW, FLANGE HEAD, M10 X 1.5	45-55 FT-LBS
2179480002	SCREW, CAP, SOCKET HEAD	55-60 FT-LBS
030HN101	NUT, PINION, M30-1.5	275-300 FT-LBS
070HM251-3	SCREW, FLANGE HEAD, M8-1.25 X 35MM	23-27 FT-LBS

## FRONT AXLE



<i>REF.</i>	<i>#</i>	<i>PART NO.</i>	<i>DESCRIPTION</i>
1	4	2100162024-Q2S	BUSHING
2	2	2100264415	WASHER
3	2	2103300001	TAPERED ROLLER BEARING
4	2	2103300002	TAPERED ROLLER BEARING
5	1	2201662028	RIGHT SPINDLE
6	1	2201662029	LEFT SPINDLE
7	1	2201662035	AXLE BEAM,
8	2	2205364006	HEAVY DUTY KING PIN
9	1	2207000001	LEFT ROD END
10	1	2207000002	RIGHT ROD END
11	1	2207662003	REAR TIE ROD
12	2	2224300002	HUB WITH 5 STUDS
13	2	2229300001	DUST CAP
14	2	2229300002	OIL SEAL
15	2	2229300003	SPINDLE WASHER
16	1	2910000005	LEFT-HAND NUT
17	1	2910000006	RIGHT-HAND NUT
18	2	2910300002	CASTELLATED NUT
19	2	2910364001	CASTELLATED NUT
20	2	361414	THRUST BEARING
21	1	4130448001	POWER STEERING CYLINDER

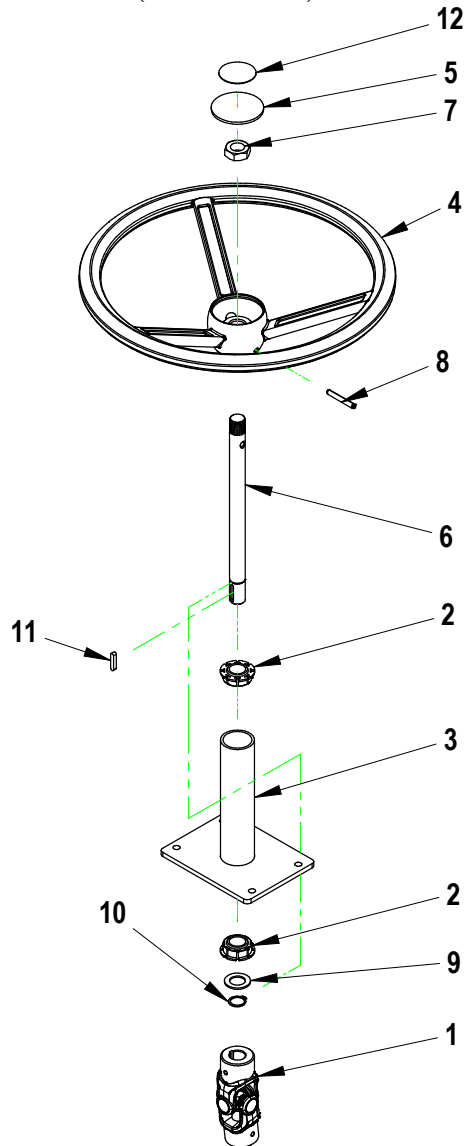
# **STEERING COLUMN ASSEMBLY** **(SEATED IC VERSION)**



REF.	PART #	DESCRIPTION	REF.	PART #	DESCRIPTION
1	2104250001	UNIVERSAL-JOINT 3/4 TO 5/8	13	3069007	12V VOLTMETER
2	2200360008	TOP STEERING LINKAGE (ASSY)-PAGE BELOW	14	3069008	HOUR METER
3	2206360044	COLUMN TOP COVER	15	3108449003	TEMPERATURE GAUGE
4	2206700013	COLUMN BACK COVER	16	3109000036	EMERGENCY STOP
5	2206701001	COLUMN SUPPORT	17	3109501005	KEYSWITCH
6	2209320007	STEERING SHAFT (MIDDLE)	18	3109800006	EMERGENCY STOP LABEL
7	2219364001	ORBITROL ADAPTER	19	3109922020	SWITCH, HEADLIGHT
8	246212	12V RED PILOT LIGHT	20	3109922130	SWITCH, HORN
9	2469012	RECTANGULAR PANEL PLUG	21	3109923010	SWITCH, FORWARD REVERSE
10	2806360021	COLUMN FRONT COVER	22	3126000001	12V, RED PILOT LIGHT
11	2930000059	SNAP RING SHAFT 3/4 ZINC	23	4190448001	ORBITROL STEERING UNIT
12	2930000060	KEY 3/16 X 3/16 X 1 -ROUNDED	24	686203	FUEL GAUGE

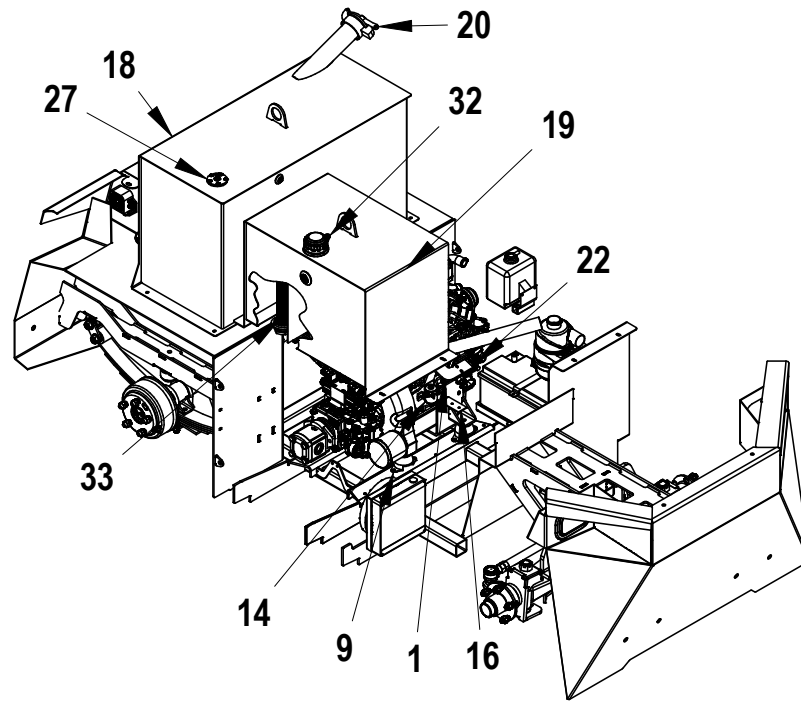
## TOP STEERING LINKAGE (ASSY)

(2200360008)

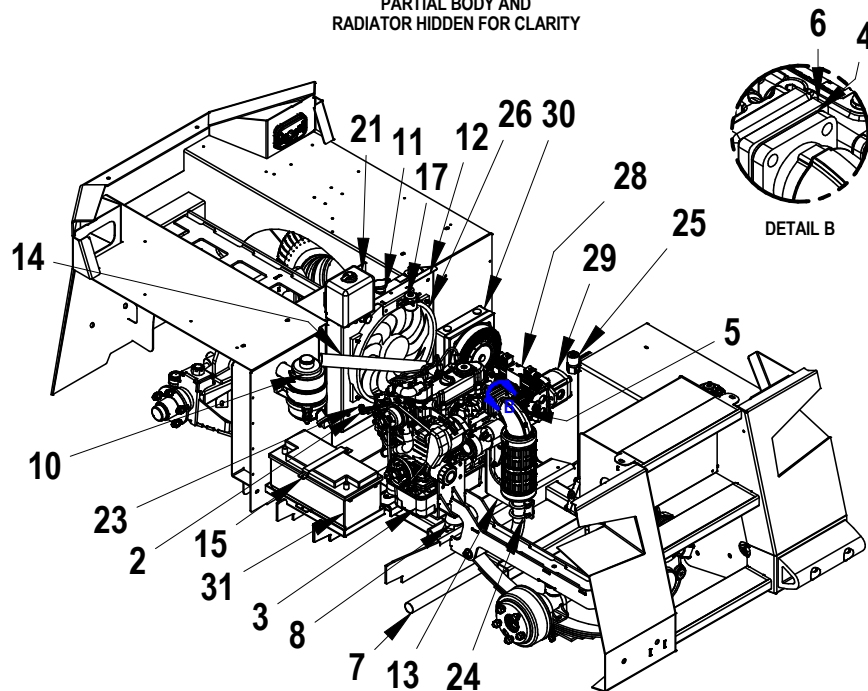


<i>REF.</i>	<i>PART #</i>	<i>DESCRIPTION</i>
1	2104000002	UNIVERSAL JOINT
2	2109012001	PLASTIC BEARING
3	2206360035	STEERING PIVOT TUBE
4	2208240001	STEERING WHEEL
5	2208240002	STEERING COVER
6	2209210006	STEERING SHAFT
7	2910000022	NUT 3/4-16 NF
8	2910000023	SPRING PIN
9	2910001003	MACHINERY BUSHINGS 162-614
10	2930000059	SNAP RING
11	2930000060	SQUARE KEY 3/16 X 1''
12	5100250009	STICKER

## DIESEL ENGINE AND RELATED COMPONENTS



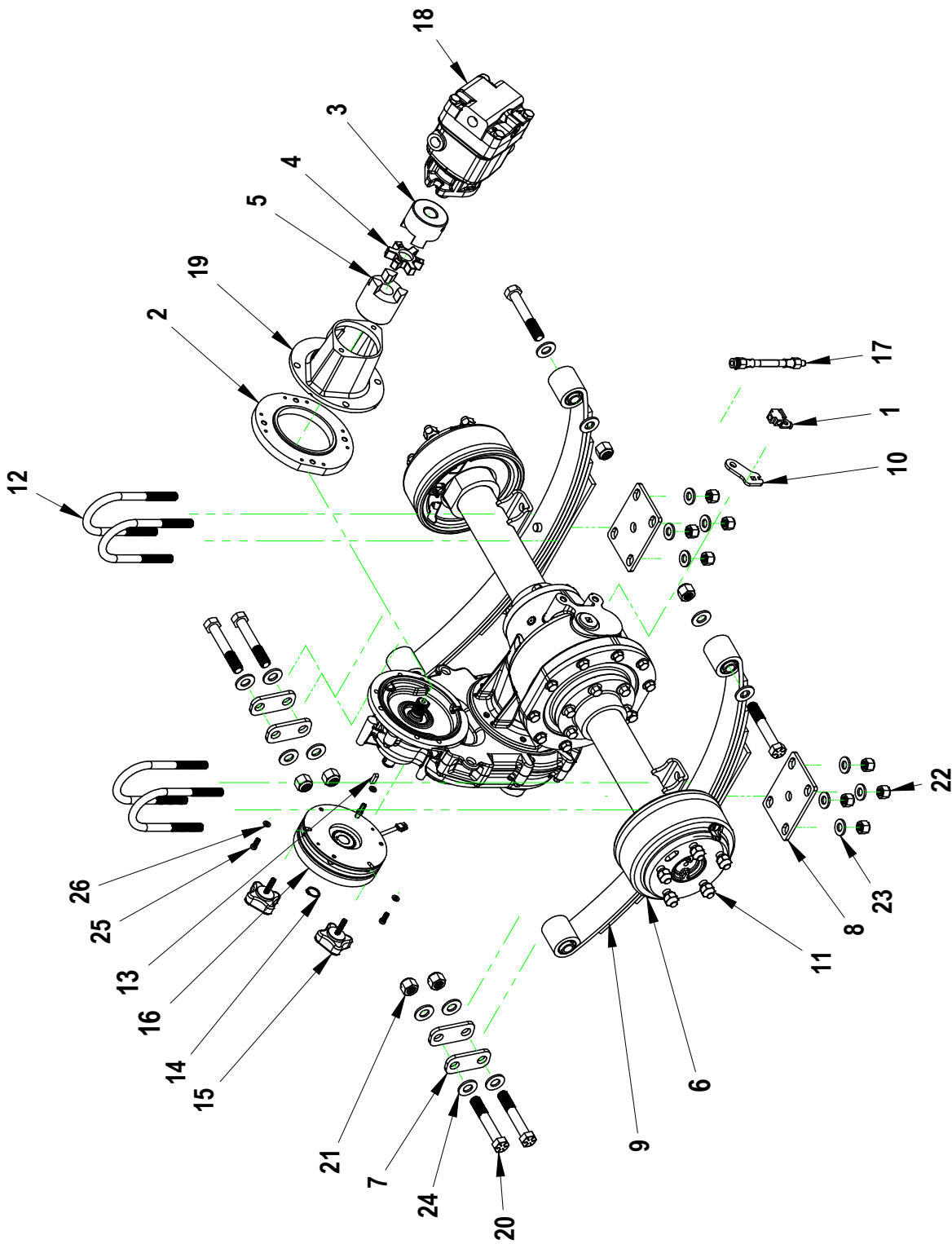
PARTIAL BODY AND  
RADIATOR HIDDEN FOR CLARITY



PARTIAL BODY AND  
FUEL AND OIL TANK HIDDEN FOR CLARITY

<b>REF.</b>	<b>#</b>	<b>PART NO.</b>	<b>DESCRIPTION</b>
1	1	2141662017	ACCELERATOR BRACKET
2	1	2149662013	THROTTLE CABLE ADAPTOR
3	1	2153501012	KUBOTA DIESEL ENGINE - D902-E4B
4	2	2157501012	GASKET, KUBOTA EXHAUST
5	1	2157501022	MUFFLER KIT STRAIGHT OUTLET
6	1	2158662011	SHIM FOR EXHAUST
7	1	2158700002	EXHAUST PIPE, DIA 1 1/2
8	2	2160501010	ENGINE MOUNT,BLUE CODE
9	1	2160501011	ENGINE MOUNT,RED CODE
10	1	2169501073	AIR FILTER KIT - KUBOTA - D902
N/A	1	2169501073-F	AIR FILTER CARTRIDGE
11	1	2169501074	RADIATOR KIT, KUBOTA - D902
12	1	2169662006	RADIATOR SUPPORT
13	1	2169662013	MUFFLER HOLDER
14	1	2169700009	AIR INLET TUBE. MX-700 DIESEL
15	1	2352703002	BATTERIE BRACKET
16	1	2399700009	HOSE SUPPORT MX-700 IC
17	2	246101	SOLENOID 24V
18	1	2601703001	FUEL TANK 43 GAL MX-700
19	1	2602703100	HYDRAULIC TANK
20	1	2603501001	FUEL CAP - DIESEL - GREEN - 2 in
21	1	2604501002	RADIATOR OVERFLOW TANK
22	1	2910000082	U-BOLT KIT, ACCELERATOR CABLE
23	1	2921000001	CABLE STOP, BRAKE
24	2	2930000042	COLLAR WITH U BOLT - BLACK PAINT
25	1	3113449002	SHUT OFF SOLENOID
26	1	3129662005	14"D ENGINE COOLING FAN
27	1	3129703001	FUEL SENDER - MODIFIED
28	1	4160322012	HYDROSTATIC PUMP FOR RR-662/MX-700
29	1	4160661004	GEAR PUMP 8CC FOR POWER STEERING WITH SAE A MOUNT - HYDROSTATIC PUMP
30	1	4190501003	OIL-AIR COOLER
31	1	5060001	BATTERY, DIESEL ENGINE
32	1	5074002	FILTER BREATHER CAP
33	1	5074015	TANK STRAINER

**REAR AXLE TOP ASSEMBLY**

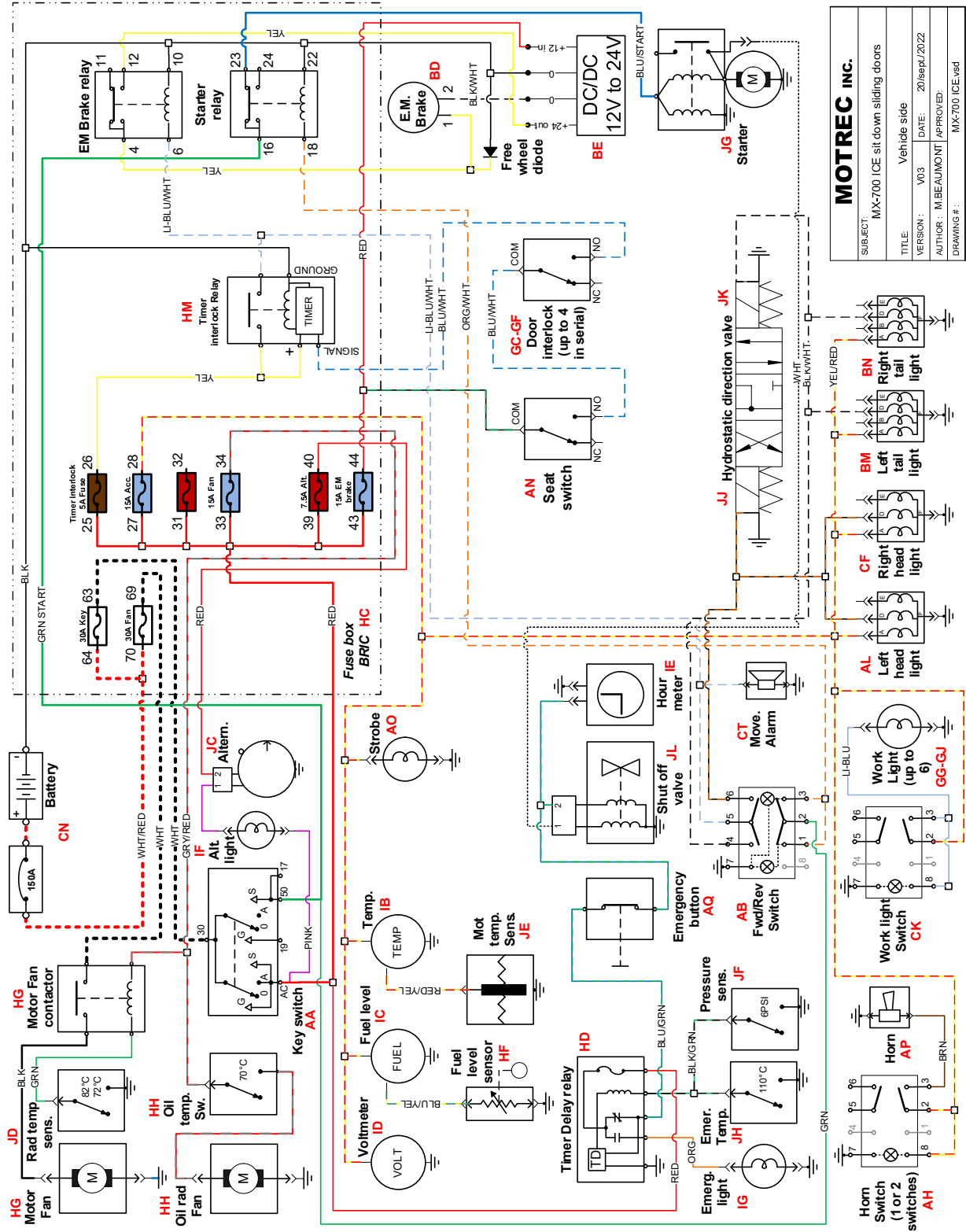




<b>REF.</b>	<b>#</b>	<b>PART NO.</b>	<b>DESCRIPTION</b>
<b>1</b>	1	2139000005	3-WAY CONNECTOR W BRACKET
<b>2</b>	1	2160703003	ADAPTER FLANGE HYDRAULIC MOTOR - DIFFERENTIAL
<b>3</b>	1	2169700001	COUPLING 7/8
<b>4</b>	1	2169700002	URETHAN INSERT FOR LOVE JOY
<b>5</b>	1	2169700008	MACHINED COUPLING SLEEVE
<b>6</b>	1	2170480330	DIRECT DRIVE REAR AXLE, RATIO 30:1
<b>7</b>	4	2182320001	2" C.C. SHACKLE LINK
<b>8</b>	2	2185320002	LEAF SPRING PLATE,GM DIFF PAINTED
<b>9</b>	2	2192320001	REAR 5-LEAF SPRING
<b>10</b>	1	2399000008	T BRACK FOR BRAKE LINE
<b>11</b>	10	2910000019	WHEEL NUT
<b>12</b>	4	2916320001	U-BOLT, GM DIFFERENTIAL
<b>13</b>	1	2930000040	SQUARE KEY 6 mm X 6 mm X 20 mm
<b>14</b>	1	2930000041	SNAP-RING 20mm
<b>15</b>	2	2930004020	POIGNÉE - 1/4-20UNC x 1 1/4'
<b>16</b>	1	3129000045	ELECTROMAGNETIC BRAKE 24V
<b>17</b>	1	362821	BRAKE HOSE (FULL LENGTH NOT SHOWN)
<b>18</b>	1	4150700001	AXIAL PISTON HYDRAULIC MOTOR
<b>20</b>	1	4190320001	MOTOR-PUMP ADAPTER
<b>21</b>	6	700118100400	HEX. BOLT 5/8-11 UNC X 4, ZINC, GR.8
<b>22</b>	6	731118100000	NYLON NUT 5/8-11 UNC, ZINC, GR.8
<b>23</b>	8	731218080000	NYLON HEX. NUT 1/2-20 UNF, ZINC, GR.8
<b>24</b>	8	750018080000	FLAT WASHER 1/2 ZINC GRADE 8
<b>25</b>	12	750018100000	FLAT WASHER 5/8 STEEL ZINC GRADE 8
<b>26</b>	3	819128060016	M6 X 1MM X 16 MM,LOW-PROFILE SOCKET HEAD CAP SCREW, 10.9
<b>27</b>	3	850070060000	M6 BRASS WASHER DIN-125

# ELECTRICAL DIAGRAM – MAIN CIRCUIT

Mx-700 IC seated

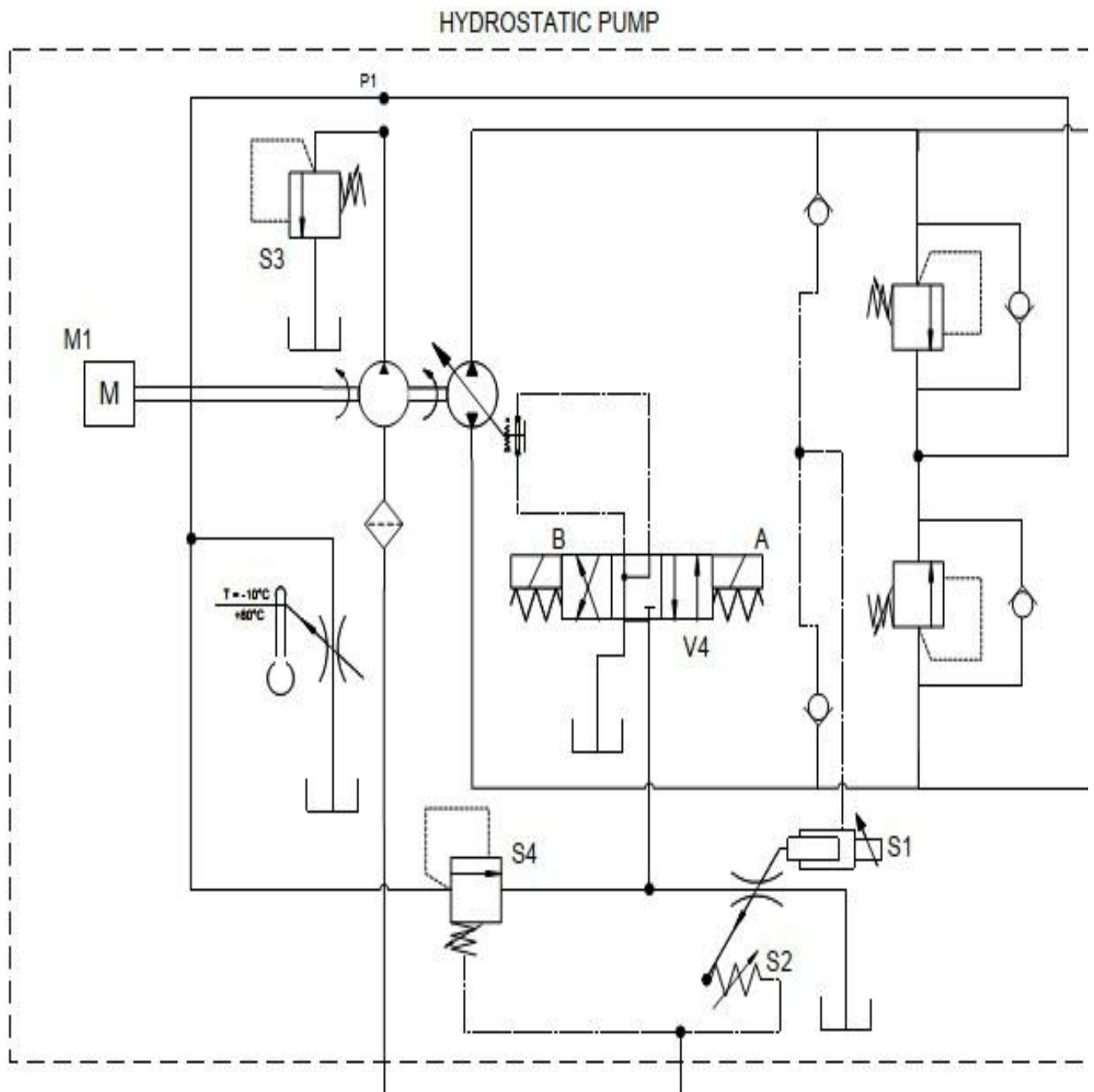


<b>MOTREC INC.</b>			
SUBJECT:	MX-700 ICE sit down sliding doors		
TITLE:	Vehicle side	DATE:	20/sep/2022
VERSION:	V03	AUTHOR:	MBEAUMONT
DRAWING #:	APPROVED:		
	MX-700 ICE.vsd		

<b>Harness connector</b>	<b>Description</b>	<b>Part number</b>
AA	KEY SWITCH DIESEL	3109501005
AA	KEY SWITCH GAS	3109449002
AB	FWD/REV SWITCH	3109923010
AH	HORN SWITCH	3109922130
AL	HEAD LIGHT LEFT	3111000061
AN	SEAT SWITCH	3109000003
AN	FOOT SWITCH	3109606001
AO	STROBE	3116000008
AP	HORN	246003
AQ	EMERGENCY STOP KIT	3109000036
AQ	EMERGENCY STOP LABEL	3109800006
AQ	EMERGENCY STOP HEAD	3109800012
AQ	EMERGENCY STOP BODY	3109000017
AQ	EMERGENCY STOP NC CONTACT	3109000018
BD	EM BRAKE	3129000045
BD	FREE WHEEL DIODE	3121700001
BE	DC/DC CONVERTER	3124000009
BM	TAIL LIGHT LEFT	3111000062
BN	TAIL LIGHT RIGHT	3111000062
CK	WORK LIGHT SWITCH	3109922020
CN	BATTERY	5060001
CN	THERMAL FUSE 150A	3107000002
CF	MOUVEMENT ALARM	3100000001
GC	INTERLOCK LEFT DOOR	3109000044
GD	INTERLOCK RIGHT DOOR	3109000044
GE	INTERLOCK FRONT DOOR	3109000044
GF	INTERLOCK REAR DOOR	3109000044
GG	LEFT FRONT WORK LIGHT	3111000071
GH	RIGHT FRONT WORK LIGHT	3111000071
GI	LEFT REAR WORK LIGHT	3111000071
GJ	RIGHT REAR WORK LIGHT	3111000071
HA	MOTOR CONNECTOR	3120703001
HC	FUSE BOX BRIC FUSION, 12V RELAY	3127012001
HD	TIMER DELAY SWITCH	3129449001
HF	FUEL SENSOR	3129662003
HG	MOTOR RADIATOR SOLENOID	246101
HG	MOTOR RADIATOR FAN	3129662005
HH	OIL COOLER RADIATOR PROBE	4190501004
HH	OIL COOLER RADIATOR FAN	4190501006
HM	TIMER INTERLOCK RELAY	3127700001
IB	MOTOR TEMPERATURE GAGE	3108449003
IC	FUEL LEVEL GAGE	686203
ID	VOLTAGE METER	3069007
IE	HOUR METER	3069008
IF	CHARGE LAMP	246212
IG	EMERGENCY LAMP	246212
JC	ALTERNATOR	3123449001

JD	TEMP. SENSOR FAN	3109501002
JE	TEMP. SENSOR	3108449004
JF	EMERGENCY OIL PRESSURE	3109501001
JG	STARTER	
JH	EMERGENCY THERMAL SWITCH	3109449001
JJ	SOLENOID FORWARD	
JK	SOLENOID REVERSE	
JL	SHUT OFF VALVE	3113449002

## HYDROSTATIC PUMP



## MOTREC ILLUSTRATED ACCESSORIES

 <p>Strobe light, pole mount Amber 12-80V: 3116000002 Red 12-80V: 2469001 Blue 12-80V: 3690008</p>	 <p>Red Tail/Brake light Grommet: 3269001 Plug: 246012A 12V : 2469021 24V : 2469022</p>	 <p>Red Tail/Turn LED light 12-24V: 3111000037</p>	 <p>Multi-LED Back-up Light: 3111000007 Strobe light: 3111000013 Grommet: 3111000008 Plug: 3119000009</p>
 <p>Strobe light, cab mount Amber 12-48V: 3116250001 Red 12-48V: 3069026 Blue 12-48V: 3069014 Amber 72-80V: 3116720001 Red 72-80V: 3116720002 Blue 72-80V: 3116720003</p>	 <p>Red Tail/Brake light ** Model EE ** Assembly: 3111000030 Housing: 3111000027 Plug: 3111000029 12V : 3111000028</p>	 <p>Clear lamp Incandescent 12V: 3111000039 Clear lamp LED 12V: 3111000042 Bulb incandescent 12V : 1269008 Bulb 12V LED: 3117000001</p>	 <p>Back-up lamp Grommet: 3269001 12V: 3669012 24V: 3669012A</p>
 <p>Amber turn lamp 12V: 3111000022 Bulb 12V: 3069021 Multi-LED amber turn lamp Round Light: 3111000010 Grommet: 3111000008 Plug: 3119000009</p>	 <p>Red Tail/Brake light Housing: 3111000041 Red Tail/Brake light Housing LED: 3111000044 Bulb 12V: 3117240001 Bulb 12V LED: 3117000010</p>	 <p>Oval lamp 12V: 3111330001</p>  <p>LED Headlight 12V: 3111000036</p>	 <p>Pedestal head lamp 12V: 3111240001 Bulb 12V: 2569001B Bulb 24V: 2169001B</p>
 <p>Amber turn lamp 2" 12V : 3111330002</p>	 <p>Multi-LED Red Tail/Brake Light: 3111000006 Grommet: 3111000008 Plug: 3119000009</p>	 <p>Headlight Left: 3111480003 Right: 3111480004 Bulb H/L: 3111480006 Bulb Turn: 3111480008 Bulb Mark: 3111480007</p>	 <p>Pedestal head lamp - LED 12-48V: 3111000034</p>
 <p>Amber turn lamp 2" LED white background 12V : 3111330003</p>	 <p>Red Tail/Brake light 12V: 386002</p>	 <p>Headlight Left: 3111480003 Right: 3111480004 Bulb H/L: 3117480001 Bulb Turn: 3117480003 Bulb Mark: 3117480002</p>	 <p>Headlamp 12V: 3111250007</p>
 <p>Red Tail/Turn/Rev light 12V: 3111000002</p>	 <p>Red Tail/Turn LED light 12-24V: 3111000037</p>		 <p>Headlamp 12V: 3111300001 Bulb 12V: 3111300002</p>

 <b>Analog Voltmeter</b> 12V : 3069007 24V : 2469002 36-48V : 3669002	 <b>Wiper motor</b> 12V: 3113000001 24V: 486211	 <b>Cab heater</b> 12V: 3103300001 36V: 3669008 48V: 4869020	 <b>Horn</b> 12V: 246003 24V: 246013
 <b>HOBBS Gauge</b> 24V: 2469026 36V: 3069038 48V: 4869037	 <b>Wiper arm</b> 2800000001	 12V Dome light 3669006	 <b>Horn button VIP</b> 2208224002
 <b>DC-DC converter, 10A</b> 12-48V: 3069019	 <b>Wiper blade</b> 14" Blade: 2800000002 18" Blade: 2800000003	 12V Fan 3669013	 <b>Horn button, column mount</b> 3109000011
 <b>DC-DC Converter, 25A</b> 12-48V: 3124000002 72-80V: 3124880001	 <b>Pantograph wiper arm</b> 246233A	 <b>Back-up alarm or Motion beeper</b> 12-48V : 3100000001 72-80V : 3105720001	 <b>Horn button, dash mount</b> 266210
 <b>DC-DC Converter, 300W</b> 24V: 3124224001 36-48V: 3124280001 72-80V: 3124880001	 <b>Pantograph wiper blade</b> 246233	 12-24V Adjustable ECCO: 3100000002	 <b>Horn button</b> 3109250001
 <b>CONNECTOR:</b> 3124280002	 <b>Limit switch</b> 3109000029	 12-48V Adjustable PRECO: 3100000004	 <b>Turn signal switch</b> 246050
		 <b>Red Pilot light</b> 12V: 246212 Bulb 12V: 246212B	