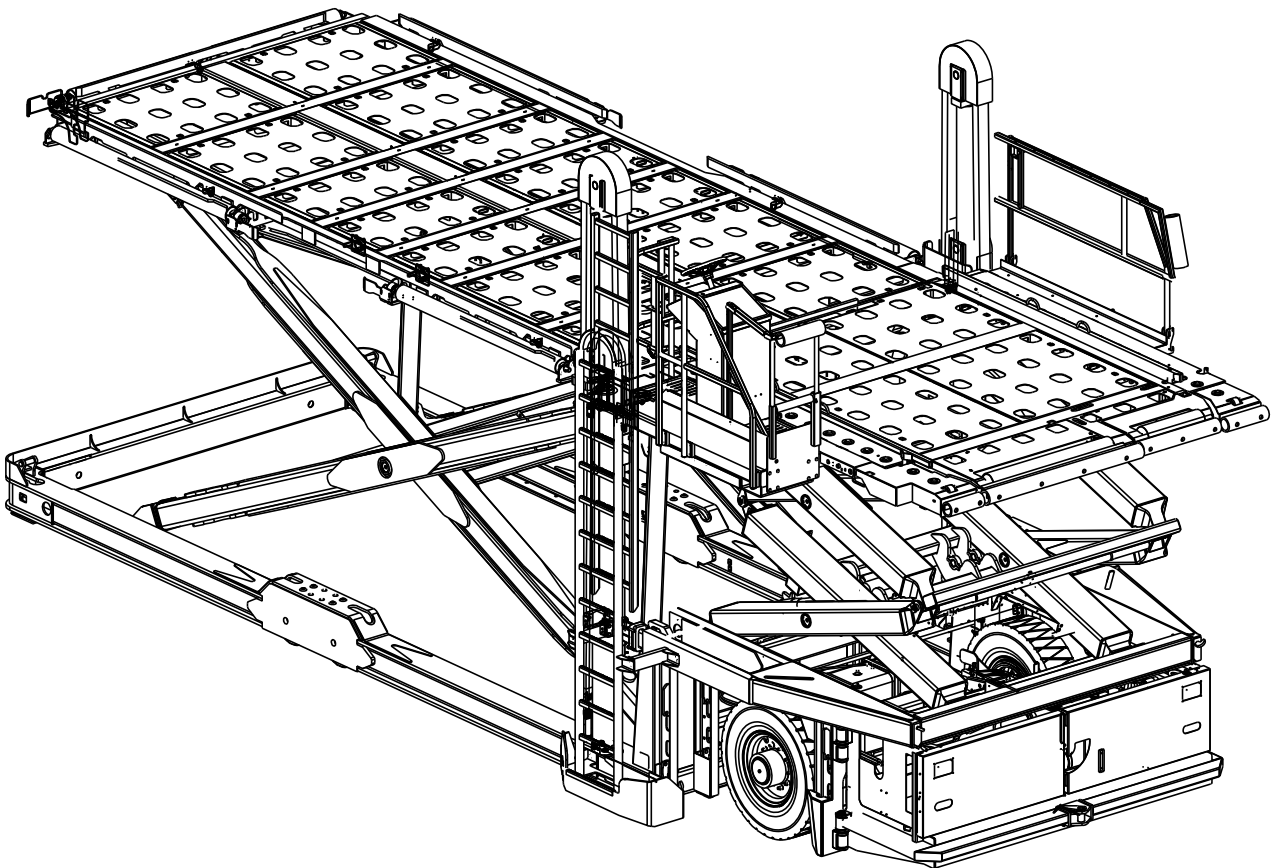
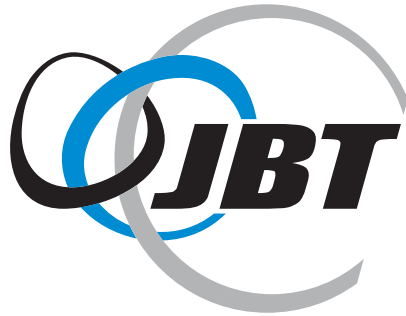


COMMANDER 30

Container and Pallet Loader





IMPORTANT

This manual from JBT, Ground Support Equipment (formerly FMC Technologies, Airport Systems) contains current information regarding your equipment at time of manufacture. All references to FMC Technologies can now be replaced with the JBT contact information located on the following page.

If you have any questions, please contact our headquarters in Orlando, Florida, USA or find us on the web at www.jbtaerotech.com.



GROUND SUPPORT AROUND THE WORLD

For assistance or questions with set-up, warranty or parts, please contact your closest JBT Sales and Service Center.

Location	Warranty and Service	Part Sales
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OPERATION, MAINTENANCE MANUAL

INCLUDING

ILLUSTRATED PARTS LIST

EDITION 9, JUNE 2001
FOR USE WITH COMMANDER 30 LOADER

SERIAL NUMBER: CR3000016 & UP

MANUFACTURED BY

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JUNE 2001

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LIST OF EFFECTIVE PAGES

All pages in this issue are original.

LIST OF WARNINGS AND CAUTIONS USED IN THIS MANUAL

The following warnings and cautions are used in this manual. Read all of them and follow the instructions when performing the procedures. The symbol shown below is used to call your attention to some procedures that could cause death or injury to personnel and/or damage to equipment.



WARNING

A WARNING MEANS THAT A PROCEDURE THAT FOLLOWS COULD CAUSE DEATH OR INJURY TO YOU OR OTHER PERSONNEL IN THE AREA IF THE PROCEDURE IS NOT FOLLOWED AS WRITTEN.

CAUTION

A CAUTION MEANS THAT A PROCEDURE THAT FOLLOWS COULD CAUSE DAMAGE TO EQUIPMENT IF THE PROCEDURE IS NOT FOLLOWED AS WRITTEN.



WARNING

BEFORE STARTING ANY TYPE OF POWER UNIT, OBSERVE ALL PRECAUTIONS BELOW.

INSURE POWER MODULE TEE BOLT IS SECURELY FASTENED.

INSURE THAT ALL PERSONNEL ARE CLEAR OF LOADER.

AT BEGINNING OF SHIFT, ENSURE THAT ALL SCHEDULED SERVICES HAVE BEEN PERFORMED. THIS INCLUDES CHECK OF TIRE CONDITION, FUEL AND FLUID LEVELS, AND OVERALL CHECK FOR LOOSE OR MISSING HARDWARE, AND GENERAL CONDITION OF LOADER.

DO NOT ATTEMPT TO OPERATE THE COMMANDER 30 WITHOUT HAVING BEEN PROPERLY TRAINED IN OPERATION AND SAFETY REQUIREMENTS.

DO NOT OPERATE LOADER WHILE UNDER INFLUENCE OF DRUGS, ALCOHOL, OR MEDICATION THAT MAY PREVENT FULL ABILITY TO CONTROL LOADER.

BE ALERT AT ALL TIMES DURING LOADER OPERATION.

IT IS PERMISSABLE TO PERFORM NORMAL LOADING OPERATIONS WHILE THE AIRCRAFT IS BEING REFUELED IF FACILITY OR REGULATORY RULES DO NOT PROHIBIT AND THE OPERATOR HAS ENSURED THAT THERE ARE NO HYDRAULIC LEAKS, OR UNSAFE CONDITIONS PRESENT. CAUTION SHOULD BE TAKEN TO ASSURE THAT POSSIBLE FUEL SPILLS WILL NOT SPLASH OR DRAIN ON THE ENGINE EXHAUST SYSTEM.

**WARNING**

WHEN USING BRIDGE TILT ENSURE ADEQUATE CLEARANCE BETWEEN LOADER AND AIRCRAFT. FAILURE TO DO SO COULD CAUSE DAMAGE TO AIRCRAFT OR LOADER.

**WARNING**

THE COMMANDER 30 IS NOT DESIGNED FOR USE AS A TRANSPORTING VEHICLE. ANY ATTEMPT TO USE IT FOR OPERATIONS OTHER THAN CARGO TRANSFER MAY RESULT IN INJURY TO PERSONNEL OR DAMAGE TO EQUIPMENT.

**WARNING**

THE COMMANDER 30 IS DESIGNED TO BE DRIVEN ON PAVED OR CEMENT SURFACES APPROVED TO SUPPORT THE WEIGHT AND USE OF GROUND SUPPORT EQUIPMENT VEHICLES. DRIVING THE COMMANDER 30 ON OTHER THAN THESE APPROVED SURFACES COULD RESULT IN INJURY TO PERSONNEL AND SERIOUS DAMAGE TO THE VEHICLE.

**WARNING**

DO NOT ALLOW PERSONNEL UNDER BRIDGE OR PLATFORM UNLESS ADEQUATE SUPPORTS ARE IN PLACE. FAILURE TO SUPPORT BRIDGE OR PLATFORM MAY ALLOW BRIDGE OR PLATFORM TO FALL, RESULTING IN DEATH OR INJURY TO PERSONNEL AND/OR DAMAGE TO EQUIPMENT.

**WARNING**

USE EXTREME CAUTION WHEN WALKING ON BRIDGE OR PLATFORM AT ALL TIMES. AVOID STEPPING ON ROLLERS OR CLUSTER ROLLER ASSEMBLIES. FAILURE TO DO SO COULD RESULT IN PERSONAL INJURY OR DEATH.

**WARNING**

USE EXTREME CAUTION WHEN WALKING IN AREAS MARKED BY STRIPED WARNING TAPE.

**WARNING**

OBSERVE ALL INSTRUCTIONS IN AIRPORT OPERATIONS MANUAL WHEN DRIVING LOADER. FAILURE TO DO SO MAY RESULT IN INJURY TO PERSONNEL OR DAMAGE TO EQUIPMENT.

**WARNING**

BEFORE DISENGAGING HUB DRIVES, CHOCK BOTH DRIVE WHEELS FRONT AND BACK TO PREVENT MOVEMENT IN EITHER DIRECTION. FAILURE TO DO SO MAY RESULT IN INJURY TO PERSONNEL OR DAMAGE TO EQUIPMENT.



WARNING

DO NOT EXCEED 11 KPM (7 MPH) WHEN TOWING LOADER. EXCEEDING SPEED LIMIT MAY CAUSE INJURY TO PERSONNEL OR DAMAGE TO EQUIPMENT.



WARNING

IF HUB DRIVES ARE NOT IMMEDIATELY ENGAGED, PLACE SUITABLE WARNING SIGN ON LOADER TO INSURE THAT ALL PERSONNEL ARE AWARE OF THE CONDITION. FAILURE TO OBSERVE THIS WARNING MAY CAUSE INJURY TO PERSONNEL OR DAMAGE TO EQUIPMENT.



WARNING

DO NOT ALLOW PERSONNEL DIRECTLY IN FRONT OF LOADER. KEEP AREA CLEAR DURING LIFTING.



WARNING

BEFORE STARTING ANY ADJUSTMENT PROCEDURE THAT WOULD REQUIRE THE PLATFORM TO BE IN AN ELEVATED POSITION, MOVE THE MAINTENANCE STANDS INTO POSITION AND LOWER THE PLATFORM FULLY AGAINST THE MAINTENANCE STANDS. DRIVE WHEELS MUST BE CHOCKED TO PREVENT MOVEMENT OF THE LOADER IN EITHER DIRECTION.

IT IS MANDATORY THAT EYE PROTECTION (SAFETY GOGGLES OR FACE SHIELD) BE WORN WHEN MAKING PRESSURE CHECKS AND/OR ADJUSTMENTS ON THE HYDRAULIC SYSTEM. HYDRAULIC OIL WILL CAUSE EYE INJURIES. IF HYDRAULIC OIL GETS ON THE SKIN, WASH AFFECTED AREA IMMEDIATELY TO AVOID IRRITATION.

WHEN MAKING PRESSURE CHECKS OR ADJUSTMENTS, USE GAUGES WITH KNOWN ACCURACY. IMPROPER HYDRAULIC ADJUSTMENTS CAN CAUSE INJURY TO PERSONNEL OR DAMAGE TO EQUIPMENT.

DO NOT REMOVE GAUGE PORT PLUGS, GAUGES OR LOOSEN HYDRAULIC CONNECTIONS WITH THE POWER UNIT RUNNING. HYDRAULIC PRESSURE IN THE SYSTEMS COULD CAUSE HYDRAULIC OIL TO SPRAY ON PERSONNEL.



WARNING

CHOCK BOTH DRIVE WHEELS FRONT AND BACK TO PREVENT MOVEMENT IN EITHER DIRECTION. FAILURE TO DO SO MAY RESULT IN INJURY TO PERSONNEL OR DAMAGE TO EQUIPMENT.



WARNING

USE EYE PROTECTION AND PROTECTIVE CLOTHING RECOMMENDED BY THE MANUFACTURER OF THE WELDING EQUIPMENT YOU ARE USING.



WARNING

USE EYE PROTECTION AND PROTECTIVE CLOTHING RECOMMENDED BY THE MANUFACTURER OF THE WELDING EQUIPMENT YOU ARE USING.

**WARNING**

DO NOT ALLOW PERSONNEL UNDER THE PLATFORM UNLESS MAINTENANCE STANDS ARE IN PLACE. FAILURE TO SUPPORT THE PLATFORM MAY ALLOW PLATFORM TO FALL, RESULTING IN DEATH OR INJURY TO PERSONNEL OR DAMAGE TO EQUIPMENT.

**WARNING**

BEFORE PERFORMING ANY MAINTENANCE OR WHILE MAKING ANY ADJUSTMENTS OR REPAIRS TO THE LOADER, IT IS MANDATORY THAT THE MASTER SWITCH BE TURNED OFF (POWER UNIT STOPPED).

**WARNING**

BE PREPARED TO OVERRIDE THE REAR LIFT OR HIT THE EMERGENCY SHUTDOWN IN THE EVENT OF PLATFORM OVERTRAVEL.

**WARNING**

USE ALL SAFETY PRECAUTIONS PER COMMANDER MAINTENANCE MANUAL WHILE WORKING ON THE UNIT.

**WARNING**

DO NOT LET THE PLATFORM INTERFACE WITH THE BRIDGE AT THIS TIME.

**WARNING**

EYE PROTECTION MUST BE WORN WHEN MAKING ADJUSTMENTS.

**WARNING**

LOADER ENGINE MUST BE SHUTDOWN WHEN MAKING ANY SWITCH ADJUSTMENT TO PREVENT AN UNCONTROLLED MOVEMENT THAT COULD POSSIBLY RESULT IN DEATH OR INJURY TO PERSONNEL OR DAMAGE TO THE LOADER.

**WARNING**

TROUBLESHOOTING OF THIS EQUIPMENT SHOULD ONLY BE DONE BY QUALIFIED TECHNICIANS THAT ARE TRAINED IN THE USE AND OPERATION OF THE EQUIPMENT. THE MAIN DRIVE WHEELS MUST BE CHOCKED TO PREVENT LOADER MOVEMENT IN EITHER DIRECTION AND PLATFORM MAINTENANCE STANDS MUST BE INSTALLED FOR SUPPORT WHENEVER PLATFORM IS RAISED FOR MAINTENANCE OR ADJUSTMENTS. FAILURE TO FOLLOW GOOD SAFETY PRACTICES DURING MAINTENANCE AND TROUBLESHOOTING PROCEDURES COULD RESULT IN DEATH OR SERIOUS INJURY TO PERSONNEL AND/OR DAMAGE TO THE EQUIPMENT.

CAUTION

DO NOT USE MAXIMUM SPEED RANGE (RABBIT) IF LOADER IS CLOSER THAN 3 METERS (10 FT.) TO AIRCRAFT.

CAUTION

OPEN DOOR CAREFULLY. FAILURE TO USE CARE MAY RESULT IN DAMAGE TO AIRCRAFT OR LOADER.

- CAUTION** FOR SHOOT-THE-GAP OPERATION, POSITION THE LOADER SO THAT RUBBER BUMPERS ON BRIDGE FACE ARE CLOSE TO BUT DO NOT TOUCH THE AIRCRAFT.
- CAUTION** USE EXTREME CARE TO PREVENT CONTAMINATION OF HYDRAULIC SYSTEM WHEN INSTALLING GAUGES, FITTINGS, OR REPLACING A COMPONENT. CONTAMINATION CAN RESULT IN DAMAGE TO EQUIPMENT.
- WHENEVER AN ADJUSTABLE HYDRAULIC RELIEF VALVE OR PRESSURE REDUCING VALVE IS REPLACED, REDUCE THE PRESSURE SETTING PRIOR TO STARTING THE POWER UNIT. ADJUST THE REPLACED COMPONENT TO SPECIFICATION AS OUTLINED IN THE ADJUSTMENT PROCEDURES.
- CAUTION** CHECK THAT CHAIN ANCHOR HAS NOT BEEN ADJUSTED TOO FAR FORWARD AND STRIKES THE CASTING WHICH SUPPORTS THE PRIMARY CYLINDER.
- CAUTION** TAG ALL SHIMS, LEFT AND RIGHT FOR REASSEMBLY.
- CAUTION** JUMPER WIRES SHOULD NEVER BE USED, AS AN ERROR (SHORT CIRCUIT) CAN DESTROY THE CIRCUIT BOARD.
- CAUTION** DO NOT STOP POWER UNIT WITH LOADER IN POSITION TO TRANSFER CARGO. DO NOT LEAVE LOADER UNATTENDED. FAILURE TO OBSERVE THIS CAUTION MAY RESULT IN DAMAGE TO AIRCRAFT OR LOADER.
- CAUTION** IT WILL BE NECESSARY TO ADJUST HEIGHT OF BRIDGE AS AIRCRAFT POSITION CHANGES DURING CARGO TRANSFER. FAILURE TO MAINTAIN ALIGNMENT OF AIRCRAFT AND BRIDGE MAY RESULT IN DAMAGE TO EQUIPMENT.
- CAUTION** IT WILL BE NECESSARY TO MANUALLY ADJUST HEIGHT OF BRIDGE AS AIRCRAFT POSITION CHANGES DURING CARGO TRANSFER. FAILURE TO MAINTAIN ALIGNMENT OF AIRCRAFT AND BRIDGE MAY RESULT IN DAMAGE TO EQUIPMENT.
- CAUTION** CLOSE CARGO DOOR CAREFULLY, FAILURE TO DO SO MAY RESULT IN DAMAGE TO AIRCRAFT OR LOADER.
- CAUTION** TO PREVENT DAMAGE TO THE STABILIZER CYLINDER ASSEMBLIES, IT IS RECOMMENDED THE STABILIZERS NOT BE EXTENDED WHEN THE UNIT IS PARKED.
- CAUTION** LIFT UNIT ONLY ON POINTS INDICATED ON FIGURE 1. FAILURE TO USE DESIGNATED LIFT POINTS WILL RESULT IN EQUIPMENT DAMAGE.

CAUTION

DO NOT OPERATE ELECTRICAL PUMP CONTINUOUSLY FOR MORE THAN 1 MINUTE. OPERATION FOR MORE THAN 1 MINUTE WILL OVERHEAT MOTOR AND MAY CAUSE DAMAGE. IF EMERGENCY PROCEDURES CANNOT BE COMPLETED WITHIN 1 MINUTE, WAIT AT LEAST 10 MINUTES TO ALLOW MOTOR TO COOL, THEN CONTINUE.

CAUTION

ENERGIZE THE EMERGENCY POWER UNIT ONLY WHILE OTHER SWITCHES ARE TURNED ON. CONTINUOUS OPERATION WHILE NOT IN USE CAUSES THE ELECTRIC MOTOR TO OVERHEAT UNNECESSARILY.

CAUTION

CLOSE AND SECURE CARGO DOOR CAREFULLY. FAILURE TO USE CARE MAY RESULT IN DAMAGE TO AIRCRAFT OR LOADER.

CAUTION

DISCONNECT BATTERY BEFORE TOWING LOADER.

CAUTION

TOWING LOADER WITHOUT DISENGAGING HUBS WILL SERIOUSLY DAMAGE COMPONENTS.

CAUTION

IN THE EVENT OF UNIT DE-COMMISSIONING, MAJOR OVERHAUL OR SERVICING, ANY ENVIRONMENTALLY SENSITIVE MATERIALS NEED TO BE DISPOSED OF PROPERLY. PROPER DISPOSAL SHALL FOLLOW LOCAL ENVIRONMENTAL REGULATIONS AND RECOMMENDATIONS. EXAMPLES OF SUCH MATERIALS INCLUDE: RUBBER TIRES AND BELTS, BATTERIES, LUBRICANTS (MOTOR OILS AND GREASE), HYDRAULIC OIL, ALL TYPES OF GLYCOL AND FUEL.

CAUTION

PLAFFORM MAINTENANCE STANDS CAN NOT BE USED WHEN PLATFORM IS BELOW 70". INSTALL BLOCKING TO SUPPORT PLATFORM FOR SAFETY BEFORE WORKING UNDER PLATFORM.



AIRLINE EQUIPMENT

CALIFORNIA

PROPOSITION 65 WARNING

Diesel engine exhaust and some of its constituents are known to the state of California to cause cancer, birth defects and other reproductive harm.

TABLE OF CONTENTS

OPERATION AND MAINTENANCE MANUAL

WITH ILLUSTRATED PARTS LIST

	<u>CHAPTER</u>
GENERAL INFORMATION AND OPERATING INSTRUCTIONS	1
MAINTENANCE	2
OVERHAUL	3
ILLUSTRATED PARTS LIST	4
OPTIONAL EQUIPMENT	5
MANUFACTURER'S DATA	6

CHAPTER 1. GENERAL INFORMATION AND OPERATING INSTRUCTIONS

TABLE OF CONTENTS

Section 1. Description

	<u>Page</u>
1. GENERAL	1
2. CAPABILITIES	1
3. MAJOR COMPONENTS	1
Chassis	1
Bridge	3
Operator's Cab	5
Platform	12
Power Unit	12
Hydraulic System	12
Electrical System	12
4. MISCELLANEOUS COMPONENTS	12
Lights	12
Horns	12
Audible Alarms	13
Powered Bogy Wheels	13
Folding handrail	13
5. AVAILABLE OPTIONS	13

Section 2. Operation

1. CONTROL AND INDICATORS	1
Driver's Panel Controls	1
Upright Panels	5
Operator's Panel Controls	8
Gauge Panel and Miscellaneous Controls	12
Driver's Console	14

	<u>Page</u>
2. PROCEDURES	16
Starting Power Unit	16
Stopping Power Unit	17
Bridge Tilt (Optional)	17
Approaching Aircraft for Cargo Transfer	17
Transferring Cargo From Aircraft	20
Transferring Cargo To Aircraft	21
Departing From Aircraft	22
Parking Loader	23

Section 3. Specifications

1. PERFORMANCE	1
2. POWER UNIT DATA	2
3. HYDRAULIC SYSTEM	2
4. ELECTRICAL SYSTEM	2
5. BRAKE SYSTEM	3
6. WHEELS AND TIRES	3
7. CAPACITIES	3
8. WEIGHT AND DIMENSIONS	4
9. ADJUSTMENT SETTINGS	6

Section 4. Shipping

1. GENERAL	1
2. SURFACE TRANSPORTATION	1
3. AIR TRANSPORTATION	1

Section 5. Storage

1. SHORT TERM STORAGE (1 MONTH MAXIMUM)	1
2. LONG TERM STORAGE	1

Section 6. Emergency Procedures

	<u>Page</u>
1. DEPARTING AIRCRAFT	1
2. DISENGAGING HUB DRIVES	4
3. TOWING	4
4. LIFT TOWING	5
5. ENGAGING HUB DRIVES	5

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