GROVE
worldwide

OPERATOR'S AND SAFETY HANDBOOK

TMS 700B
CARRIER

S/N_____

REVISED: MAY, 1995

CLICK HERE TO **DOWNLOAD** THE COMPLETE MANUAL

- Thank you very much for reading the preview of the manual.
- You can download the complete manual from: www.heydownloads.com by clicking the link below

- Please note: If there is no response to CLICKING the link, please download this PDF first and then click on it.

CLICK HERE TO **DOWNLOAD** THE COMPLETE MANUAL

LIST OF FIGURES

other contaminants can cause a link to conduct electricity. Due to their capacity ratings, some links are not effective for large cranes and/or high voltages/currents.

The only protection that may be afforded by an insulated link is below the link (electrically downstream), provided the link has been kept clean, free of contamination, has not been scratched or damaged, and is periodically tested (just before use) for its dielectric integrity.

Boom cages and boom guards afford limited protection from electrocution hazards. They are designed to cover only the boom nose and a small portion of the boom. Performance of boom cages and boom guards is limited by their physical size, insulating characteristics, and operating environment (e.g. dust, dirt, moisture, etc.). The insulating characteristics of these devices can be compromised if not kept clean, free of contamination and undamaged.

Proximity sensing and warning devices are available in different types. Some use boom nose (localized) sensors and others use full boom length sensors. No warning may be given for components, cables, loads, and other attachments located outside of the sensing area. Much reliance is placed upon you, the operator, in selecting and properly setting the sensitivity of these devices.

Never rely solely on a device to protect you and your fellow workers from danger.

Some variables you must know and understand are:

- Proximity devices are supposed to detect the existence of electricity and not its quantity or magnitude.

- Some proximity devices will detect only alternating current (AC) and not direct current (DC).

- Some proximity devices detect radio frequency (RF) energy and others do not.

- Most proximity devices simply provide a signal (audible, visual or both) for the operator and this signal must not be ignored.

- Sometimes the sensing portion of the proximity devices becomes confused by complex or differing arrays of power lines and power sources.

DO NOT depend on grounding. Grounding of a crane affords little or no protection from electrical hazards. The effectiveness of grounding is limited by the size of the (wire) conductor used, the condition of the ground, the magnitude of the voltage and current present, and numerous other factors.

Section 3
CAB CONTROLS AND INDICATORS

Because there is only one engine on this crane, it can be controlled from both the superstructure and carrier cabs. Each ignition switch, when positioned to the acc or on position, supplies voltage through the electrical swivel to certain gauges and indicators in the other cab. The engine oil pressure gauges, water temperature gauges, tachometer, and fuel level gauges are connected in parallel with one sender unit.

NOTE

The following paragraphs describe the controls and indicators located in the carrier cab. The numbers in parentheses ( ) represent the index number from the figure titled Carrier Cab Controls and Indicators.

ENGINE CONTROLS AND INDICATORS

COLD START SWITCH

The COLD START switch (35) is located on the left side of the front console panel at the bottom. The switch is a two position, spring returned to off toggle switch and is used to inject shots of starting aid into the intake manifold of a cold engine during starting. The ignition switch must be in the start position for cold start operation.

VOLTMETER

The voltmeter (BATTERY) (33) is located on the left side of the front console panel. With the ignition switch in the on position and before starting the engine, the voltmeter indicates the condition of the batteries. With the engine running, the voltmeter indicates output voltage of the alternator. The voltmeter indicates voltage on a scale from 10 to 16 volts.

upper portion of the steering column and telescope the steering wheel in or out for ease of operation and comfort. Turning the control clockwise will lock the column in place.

CAB DOME LIGHT

The cab dome light (11) is located on the right rear corner of the cab roof and provides illumination of the cab. The light is controlled by a switch on the light itself.

FIRE EXTINGUISHER

The fire extinguisher (10) is located at the rear of the cab. The fire extinguisher is a BC rated dry type fire extinguisher for emergency use.

WINDSHIELD WIPER SWITCH

The windshield wiper (WIPER/WASHER) switch (31) is located on the left side of the front console at the bottom. The switch has three positions; off, low, and high. In addition, pushing the switch energizes the motor on the windshield washer pump assembly. Positioning the switch to low energizes the wiper motor in low speed and positioning it to high energizes the motor for high speed. Positioning the switch to off stops the motor and causes the automatic park function of the wiper motor to return the wiper blade to the parked position.

HEADLIGHTS SWITCH

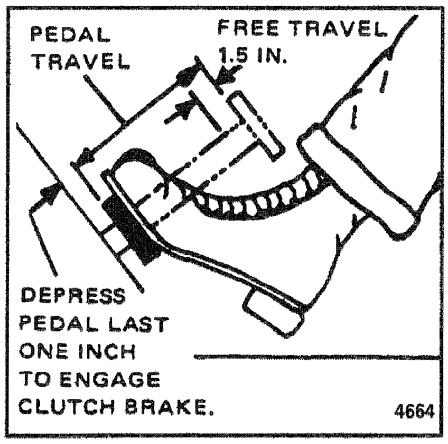
The HEADLIGHTS switch (43) is located on the right side of the instrument panel at the bottom. The switch is a push–pull type switch with a rheostat control. Pulling the switch to the first detent illuminates the marker lights and the gauge lights. Pulling the switch to the second detent illuminates the headlights, the marker lights, and the gauge lights. Rotating the switch knob controls the brightness of the gauge lights.

HEADLIGHT HIGH BEAM INDICATOR

The headlight HIGH BEAM indicator (22) is located on the LED alert panel at the top of the front console panel. It is a green light that illuminates when the headlights are on high beam.

SWING BRAKE ON INDICATOR

The SWING BRAKE ON indicator (28) is located on the LED alert panel at the top of front console. The indicator is a red light that will illuminate when the swing brake is on.



Clutch Travel

The clutch brake is particularly useful or initial gear engagement in the lower gears when going uphill, when the road speed drops off more quickly than the engine RPM requiring rapid shifts. The clutch brake MUST NOT BE USED when making a downshift.

Clutch engagement should always be made smoothly while synchronizing accelerator movement necessary to move the crane.

CAUTION

NEVER FULLY DEPRESS THE CLUTCH PEDAL BEFORE THE TRANSMISSION IS PUT IN NEUTRAL. IF THE CLUTCH BRAKE IS APPLIED WITH THE TRANSMISSION STILL IN GEAR, A REVERSE LOAD WILL BE PUT ON THE GEARS MAKING IT DIFFICULT TO GET THE TRANSMISSION OUT OF GEAR. AT THE SAME TIME, IT WILL HAVE THE EFFECT OF TRYING TO STOP OR DECELERATE THE CRANE WITH THE CLUTCH BRAKE, WITH RESULTANT RAPID WEAR AND GENERATION OF EXCESSIVE HEAT, NECESSITATING FREQUENT REPLACEMENT OF THE BRAKE FRICTION DISCS.

Double clutching is a means of bringing the speed of the transmission gears into synchronization so the shift can be made without clash. The engine is used to speed up the countershaft for a downshift and to slow it down for an upshift. Double clutching operation is accomplished as follows.

1. Depress the clutch (do not engage clutch brake) and shift into neutral.

2. Release clutch pedal and accelerate the engine (when making downshift) or allow engine to slow down (when upshifting) until engine speed approximately corresponds to road speed of the gear ratio selected.

3. Depress the clutch pedal (do not engage clutch brake) and shift into gear.

4. Release the clutch pedal. Always use the double clutching technique.

8. Parking brakes are controlled by a readily identified push–pull knob on the dash panel. To apply the parking brake, pull the knob out. To release the parking brake, push the knob in.

REMOVABLE COUNTERWEIGHT

CAUTION

IF THE CRANE IS EQUIPPED WITH 15 X 22.5–H 16 PR FRONT TIRES, ONE SECTION OF COUNTERWEIGHT SHALL BE STOWED ON THE CARRIER AND THE SECOND SECTION STOWED ON THE SUPERSTRUCTURE FOR HIGHWAY TRAVEL.

Mounting the Counterweight

1. Fully extend and set the outriggers.

2. Rotate and align the rear of the superstructure above the removable counterweight.

3. Lower the counterweight cylinders. Pin the cylinders to the counterweight using the clevis pins on the cylinders. Insert the retaining pins in the clevis pins.

4. Remove the long pins from the removable counterweight and frame lugs.

5. Raise the removable counterweight to the superstructure counterweight.

NOTE

It may be necessary to jog the counterweight removal control lever to install the long retaining pins.

6. Insert the long pins into the superstructure counterweight.

6. **Rooster Sheave (Optional).**

Lube Type – EP – MPG
Lube Interval – 50 hours
Lube Amount – Until grease extrudes
Application – 1 grease fitting

7. **Extension Cable Sheaves.**

NOTE

The boom sections must be extended to gain entry through the access holes in the boom.

Lube Type – EP – MPG
Lube Interval – 50 hours
Lube Amount – Until grease extrudes
Application – 1 grease fitting

8. **Retraction Cable Sheave.**

NOTE

The boom sections must be extended to gain entry through the access holes in the boom.

Lube Type – EP – MPG
Lube Interval – 50 hours
Lube Amount – Until grease extrudes
Application – 1 grease fitting

9. **Telescope Cylinder Wear Pads.**

NOTE

The boom sections must be extended to gain entry through the access holes in the boom.

Lube Type – EP – MPG
Lube Interval – 25 hours
Lube Amount – Thoroughly coat the area the wear pad moves on
Application – By brush

10. **Adjustable Wear Pads.**

Lube Type – EP – MPG
Lube Interval – 25 hours
Lube Amount – Thoroughly coat the area the wear pad moves on
Application – By brush

37. Steering Relay Shaft.

Lube Type – EP–MPG
Lube Interval – 1000 miles (1600 km)
Lube Amount – Until grease extrudes
Application – 2 fittings

38. Steering Gearbox.

Lube Type – EPGL–5
Lube Interval – 1000 miles (1600 km)
Lube Amount – 2 pints (0.95 liters)
Application – Fill at fill plug

39. Steering Links.

Lube Type – EP–MPG
Lube Interval – 1000 miles (1600 km)
Lube Amount – Until grease extrudes
Application – 1 fitting each end of each link

40. Steering Levers.

Lube Type – EP–MPG
Lube Interval – 1000 miles (1600 km)
Lube Amount – Until grease extrudes
Application – 1 fitting on each lever

41. Steer Cylinders.

Lube Type – EP–MPG
Lube Interval – 25 hours
Lube Amount – Until grease extrudes
Application – 1 fitting each end of each cylinder

42. Jib Sheave.

Lube Type – EP–MPG
Lube Interval – 25 hours
Lube Amount – Until grease extrudes
Application – 1 grease fitting per sheave wheel

43. Swingaway Side Wear Pads.

Lube Type – EP–MPG
Lube Interval – 25 hours
Lube Amount – Thoroughly coat the area the wear pad moves on
Application – By brush

CLICK HERE TO **DOWNLOAD** THE COMPLETE MANUAL

- Thank you very much for reading the preview of the manual.
- You can download the complete manual from: www.heydownloads.com by clicking the link below

- Please note: If there is no response to CLICKING the link, please download this PDF first and then click on it.

CLICK HERE TO **DOWNLOAD** THE COMPLETE MANUAL