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Manual # 99904677

# 5/33 Technical Specifications

Revision Date 20111213



IOWA MOLD TOOLING CO., INC.

PO Box 189

Garner, IA 50438

Tel: 641-923-3711 FAX: 641-923-2424

Website: <http://www.imt.com>

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## Revisions

| DATE     | LOCATION | DESCRIPTION                            |
|----------|----------|--|
| 20111213 |          | ECN 11628 – Update stabilizer wording. |
|          |          |  |
|          |          |  |

## CHAPTER 1

# Technical Data and Charts

## In This Chapter

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## 5/33 Specifications

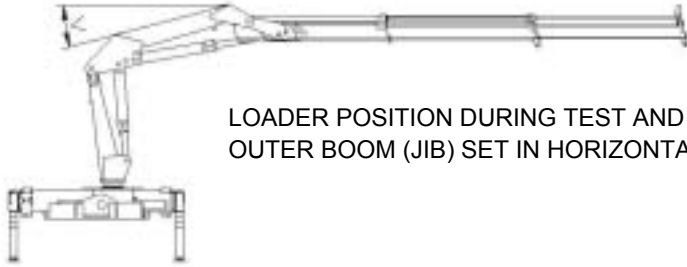
| 5/33                          | 1-HYDRAULIC           | 2-HYDRAULIC           | 3-HYDRAULIC           | 4-HYDRAULIC           |
|-------------------------------|-----------------------|-----------------------|-----------------------|-----------------------|
| Crane Rating*                 | 32,550 ft-lb (4.5 tm) | 31,825 ft-lb (4.4 tm) | 30,380 ft-lb (4.2 tm) | 29,655 ft-lb (4.1 tm) |
| Maximum Horizontal Reach      | 16' 1" (4.9 m)        | 21' 0" (6.4 m)        | 26' 3" (8.0 m)        | 31' 6" (9.6 m)        |
| Maximum Vertical Reach        | 23' 0" (7.0 m)        | 27' 11" (8.5 m)       | 32' 9" (10.0 m)       | 37' 7" (11.5 m)       |
| Maximum Capacity              | 2975 lb (1350 kg)     | 2820 lb (1280 kg)     | 2645 lb (1200 kg)     | 2515 lb (1140 kg)     |
| Max Cap @ Max Reach           | 2070 lb (940 kg)      | 1475 lb (670 kg)      | 1100 lb (500 kg)      | 825 lb (375 kg)       |
| Crane Weight **               | 1255 lb (569 kg)      | 1375 lb (624 kg)      | 1475 lb (669 kg)      | 1555 lb (705 kg)      |
| Hook Approach                 |                       |                       |                       |                       |
| Vertical                      | 7' 1" (2.16 m)        | 6' 9" (2.06 m)        | 6' 5" (1.96 m)        | 6' 1" (1.85 m)        |
| Horizontal                    | 2' 9" (0.84 m)        | 2' 11" (0.89 m)       | 3' 1" (0.94 m)        | 3' 3" (1.0 m)         |
| Center of Gravity - Stored    |                       |                       |                       |                       |
| Vertical                      | 1' 7" (475 mm)        | 1' 7" (493 mm)        | 1' 8" (506 mm)        | 1' 8" (518 mm)        |
| Horizontal (C/L RotTo Bridge) | 7.8" (198 mm)         | 7.4" (187 mm)         | 6.7" (171 mm)         | 6.0" (152 mm)         |

\* Crane rating (ft-lb) is the rated load (lb) multiplied by the respective distance (ft) from centerline of rotation with all extensions retracted and the inner and outer booms in a horizontal position, per ANSI B30.22. \*\* Crane weight does not include stabilizers.

| 5/33 SPECIFICATIONS   |                      |
|---|----------------------|
| Stabilizer Pad Diameter   | 5.5" (140 mm)        |
| Crane Storage Height  | 5' 9" (1750 mm)      |
| Mounting Space  | 1' 9" (530 mm)       |
| Rotational Torque   | 5065 ft-lb (700 kgm) |
| Rotation  | 400°                 |
| Optimum Pump Performance  | 6.6 gpm (25 lpm)     |
| System Pressure   | 3915 psi (270 bar)   |
| Oil Reservoir Capacity  | 6 gal (23 l)         |
| Stabilizer Extension Span   |                      |
| Standard (manual out /hydraulic down)   | 9' 11" (3025 mm)     |
| Weight  | 220 lb (100 kg)      |
| Option 1 (manual out / hyd. down)   | 13' 7" (4145 mm)     |
| Weight  | 265 lb (120 kg)      |
| Option 2 (hyd. out / hyd. down)   | 16' 2" (4925 mm)     |
| Weight  | 320 lb (145 kg)      |
| *** Maximum swing clearance radius required is 20.5" (516 mm) at 6'-9" (2055 mm) from top of chassis frame. |                      |

| MINIMUM CHASSIS SPECIFICATIONS |                             |
|--------------------------------|-----------------------------|
| Front Axle Rating (GAWR)       | 5000 lb (2270 kg)           |
| Rear Axle Rating (GAWR)        | 9500 lb (4310 kg)           |
| Resistance To Bending Moment   | 440,000 in-lb (50,695 kg-m) |

## 5/33 Pressure Settings



LOADER POSITION DURING TEST AND VALVE ADJUSTMENT:  
OUTER BOOM (JIB) SET IN HORIZONTAL POSITION, V AT 15 DEG.

| <b>WORKING PRESSURE ON MAIN-RELIEF VALVES &amp; PORT-RELIEF VALVES</b> |                  |             |                                    |
|--|------------------|-------------|------------------------------------|
| <i>Function</i>  | <i>Direction</i> | <i>Port</i> | <i>Pressure (Loading Group 03)</i> |
| Main-Relief Valve  |                  |             | 3915 psi (270 bar)                 |
| Stabilizers / Grab / Rotator   | Down             | A-port      | 2540 psi (175 bar)                 |
|  | Up               | B-port      | 2540 psi (175 bar)                 |
|  | Down             | A-port      | 2540 psi (175 bar)                 |
|  | Up               | B-port      | 2540 psi (175 bar)                 |
| Extension Cylinders  | Extend           | A-port      | P                                  |
|  | Retract          | B-port      | P                                  |
| Jib Cylinder   | Down             | A-port      | 2900 psi (200 bar)                 |
|  | Up               | B-port      | 4205 psi (290 bar)                 |
| Boom Cylinder  | Up               | A-port      | 4205 psi (290 bar)                 |
|  | Down             | B-port      | 1450 psi (100 bar)                 |
| Rotation System  | Right            | A-port      | 2175 psi (150 bar)                 |
|  | Left             | B-port      | 2175 psi (150 bar)                 |
| Winch (Pullmaster PL1)   | Retract          | A-port      | 2030 psi (140 bar)                 |
|  | Extend           | B-port      | 2030 psi (140 bar)                 |
| Winch (Pullmaster PL2)   | Retract          | A-port      | 2250 psi (155 bar)                 |
|  | Extend           | B-port      | 2250 psi (155 bar)                 |
| Separate Stabilizer Valve  |                  |             | 2175 bar (150 bar)                 |

### OPENING PRESSURE ON LOAD-HOLDING VALVES

|                    |                    |
|--------------------|--------------------|
| Boom Cylinder      | 4350 psi (300 bar) |
| Jib Cylinder       | 4425 psi (305 bar) |
| Extension Cylinder | 3045 psi (210 bar) |
| Re-generation      | 6235 psi (430 bar) |

### PRESSURE SETTING

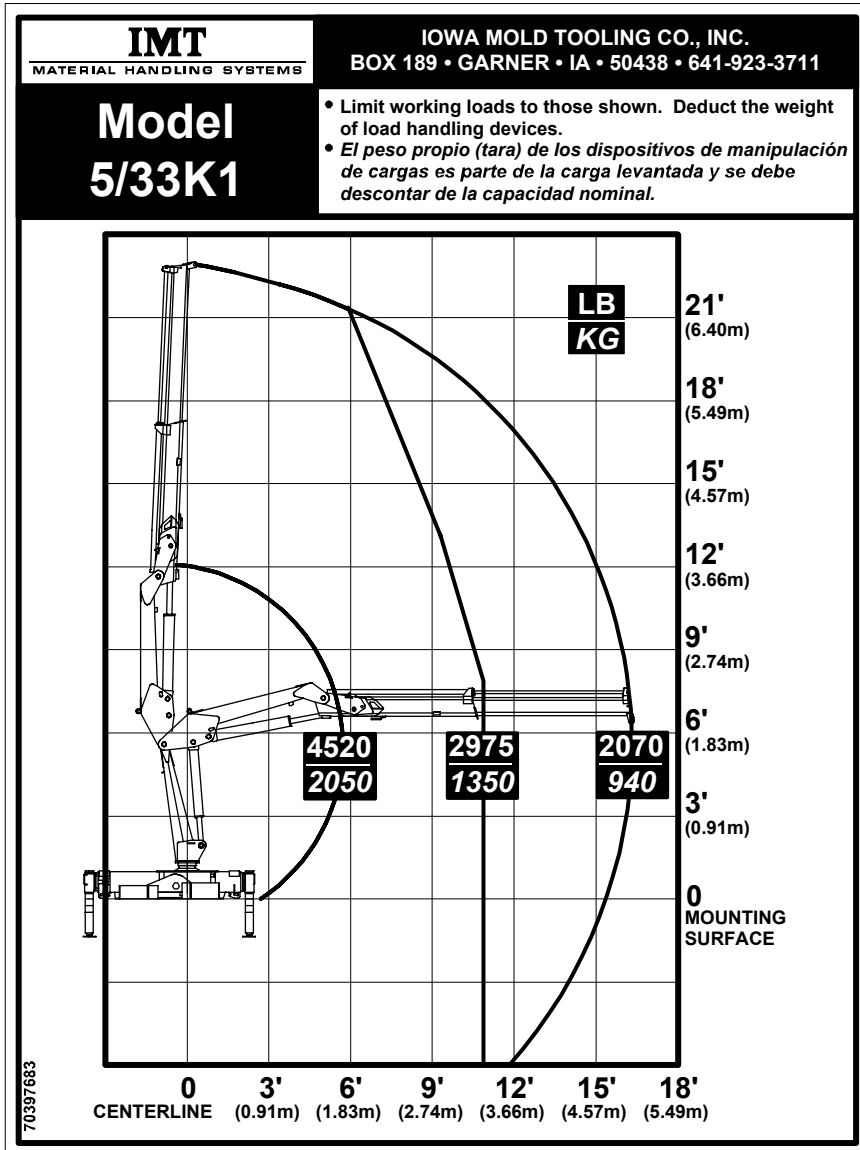
|   |                    |
|---|--------------------|
| Pressure Setting for Load-Moment Limitation | 3770 psi (260 bar) |
|---|--------------------|

### MAXIMUM PUMP PERFORMANCE

|                               |                    |
|-------------------------------|--------------------|
| Pump Performance 5/33 K1 & K2 | 6.6 gpm (25 l/min) |
| Pump Performance 5/33 K3 & K4 | 5.3 gpm (20 l/min) |

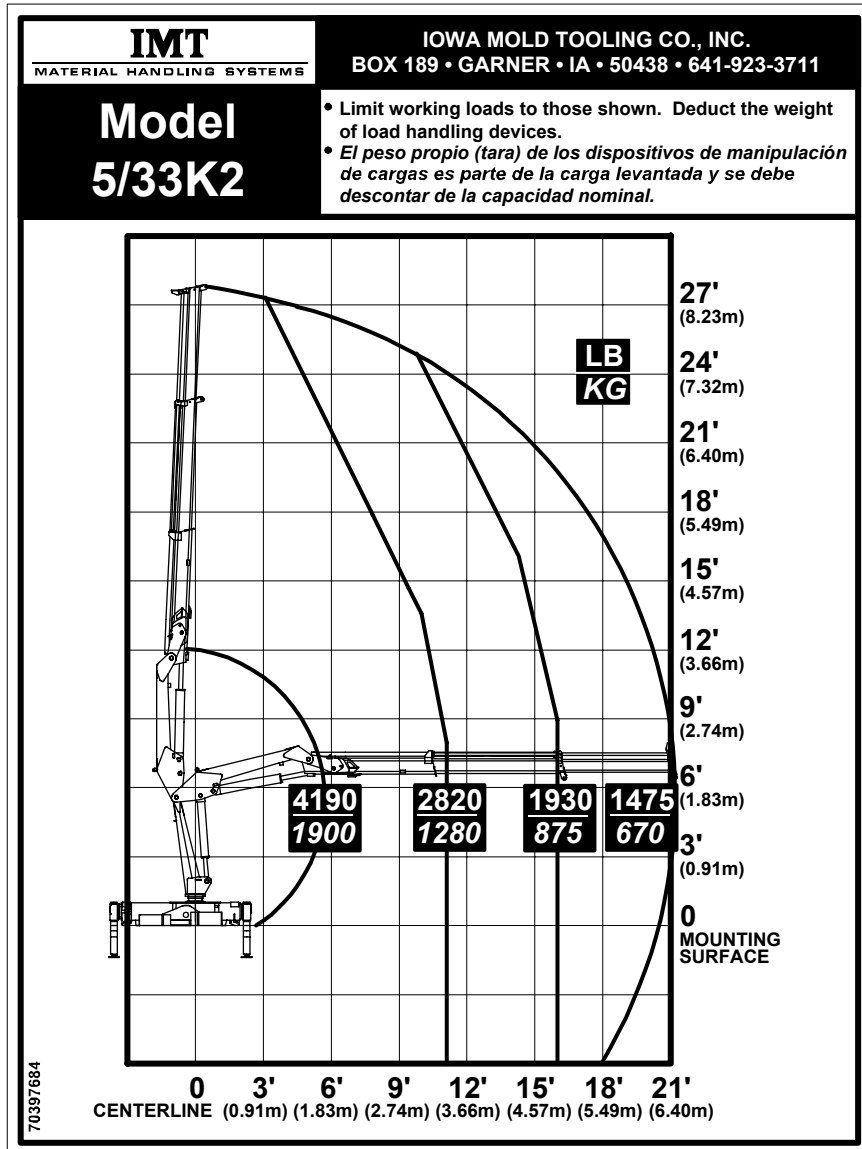
Note: On Hydrocontrol M50, the A-port is located next to the control lever.

# 5/33 K1 Capacity Chart

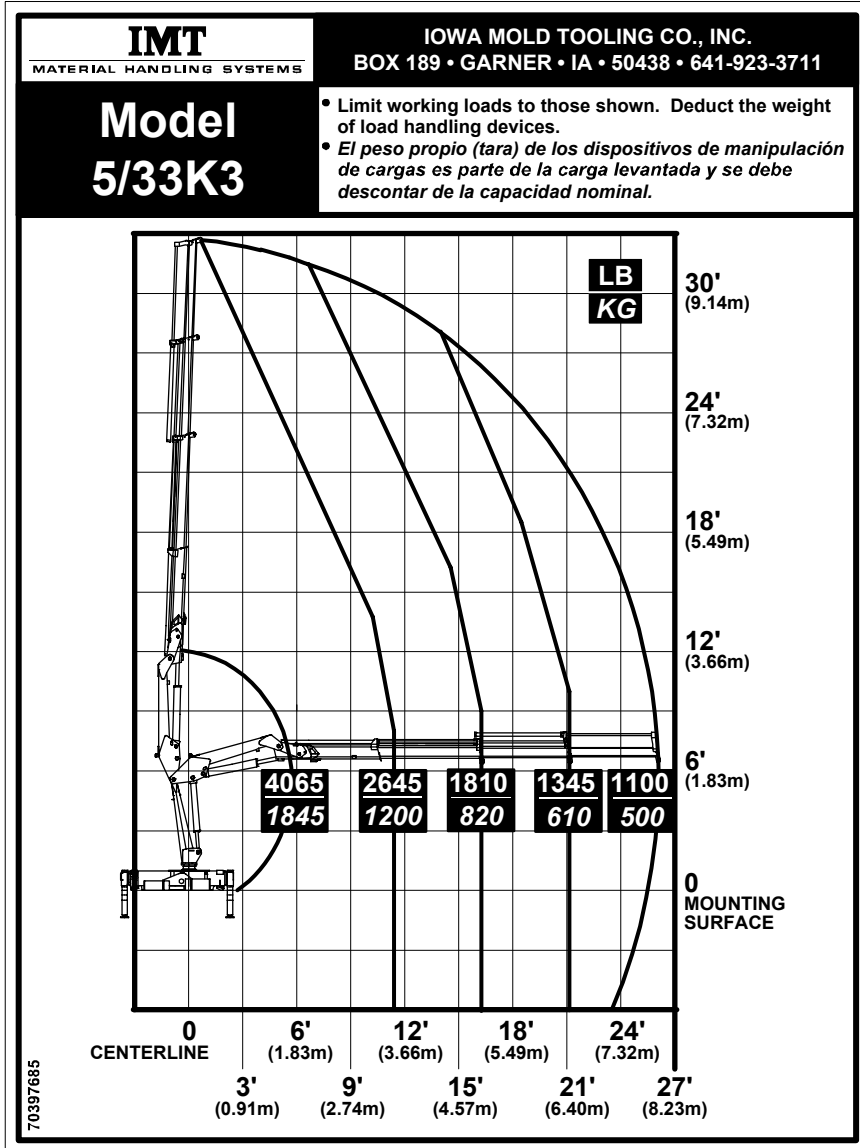




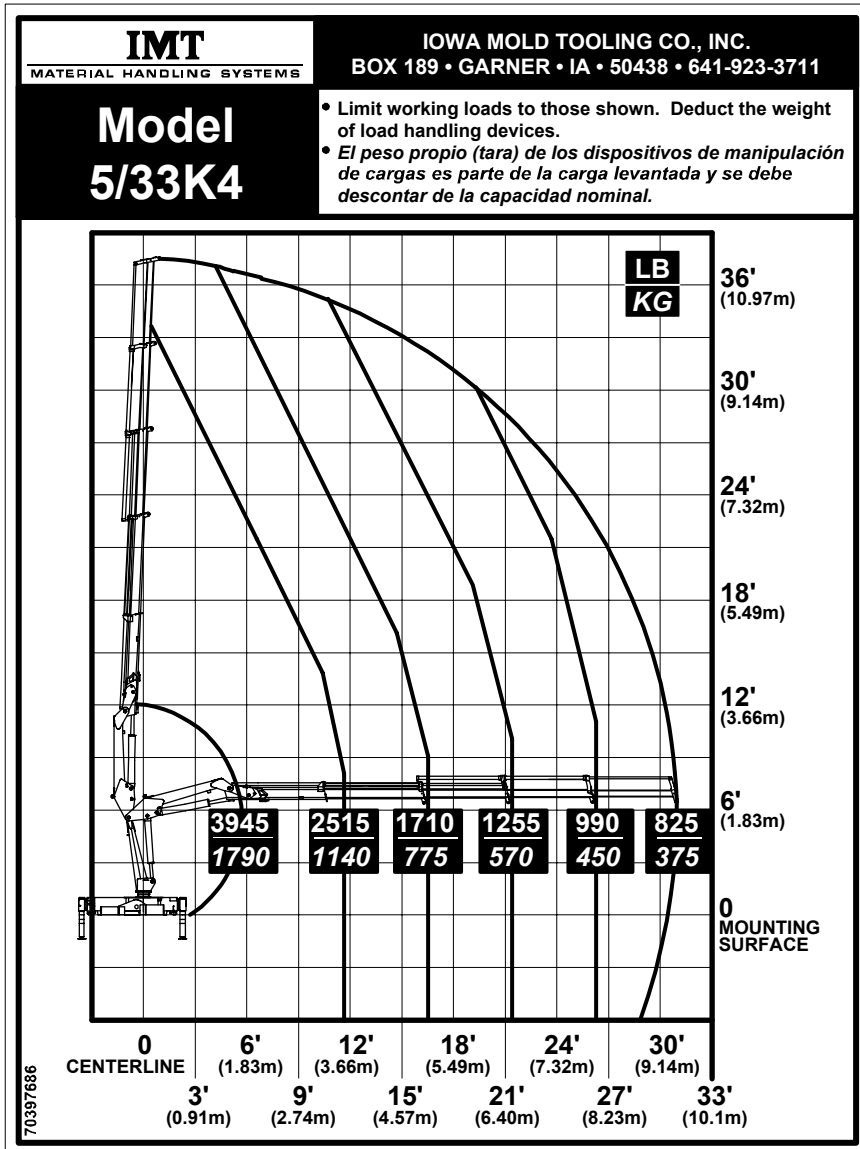
# 5/33 K2 Capacity Chart



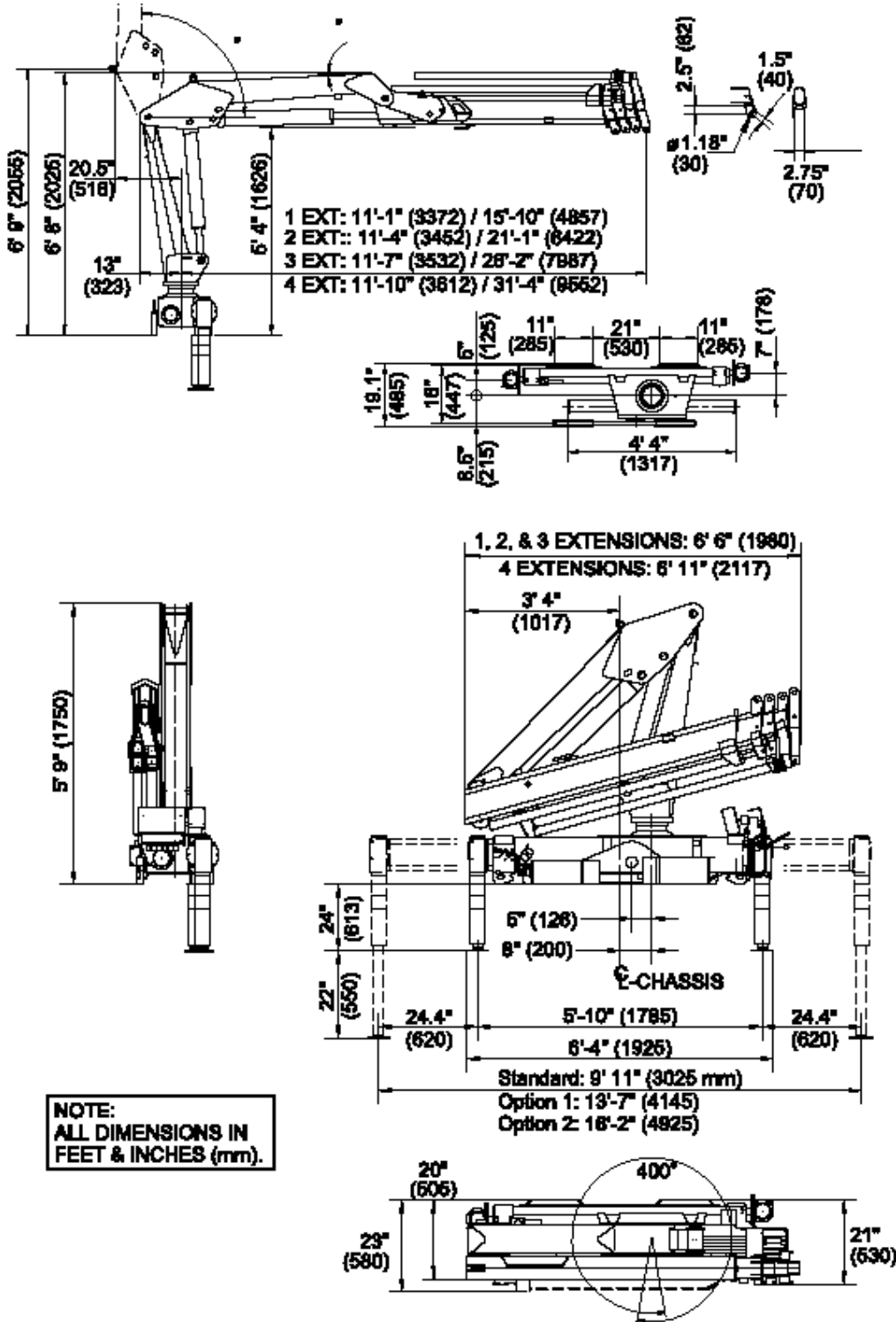
# 5/33 K3 Capacity Chart



# 5/33 K4 Capacity Chart



# 5-33 Geometric Configuration



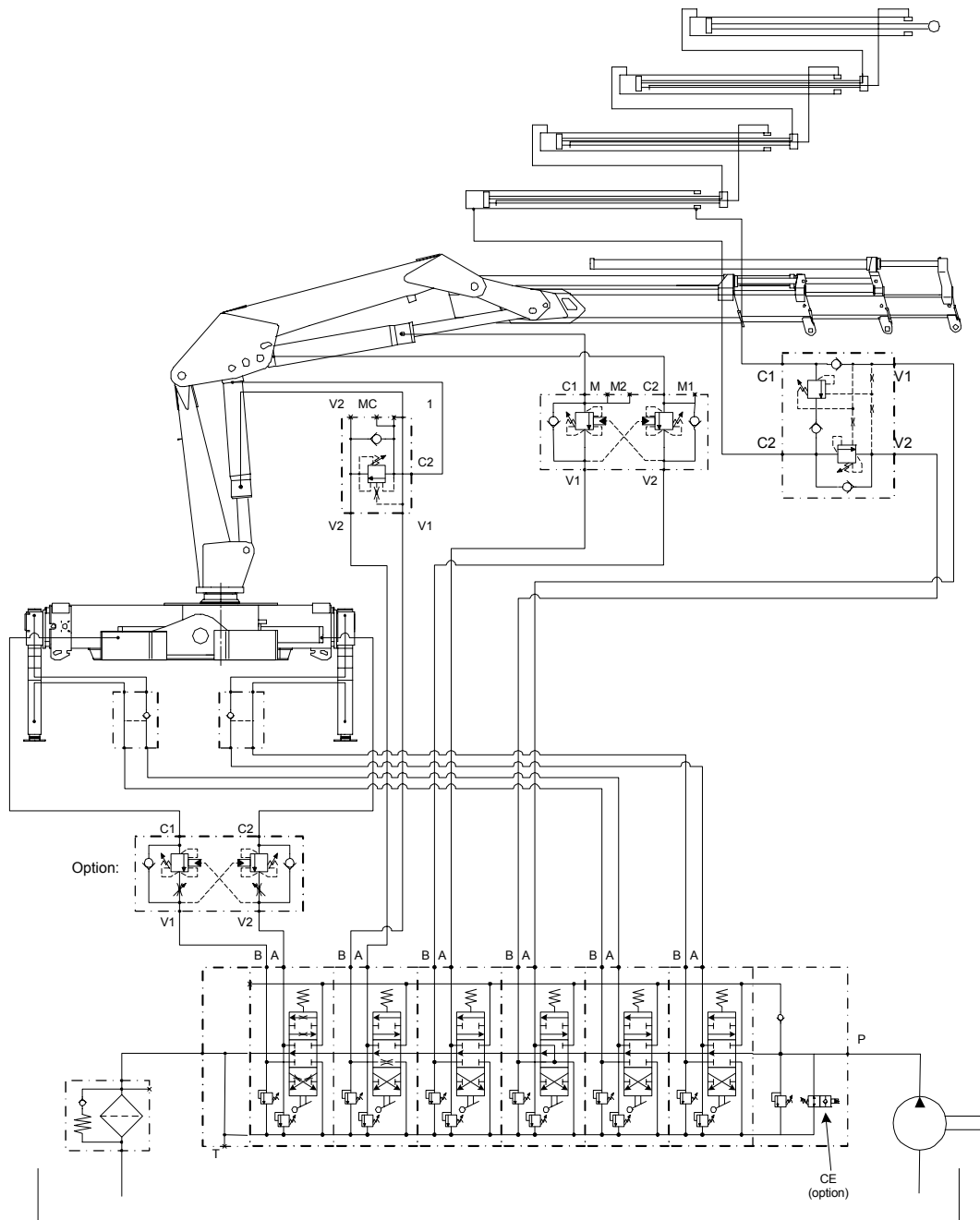
## CHAPTER 2

# Hydraulic Schematics

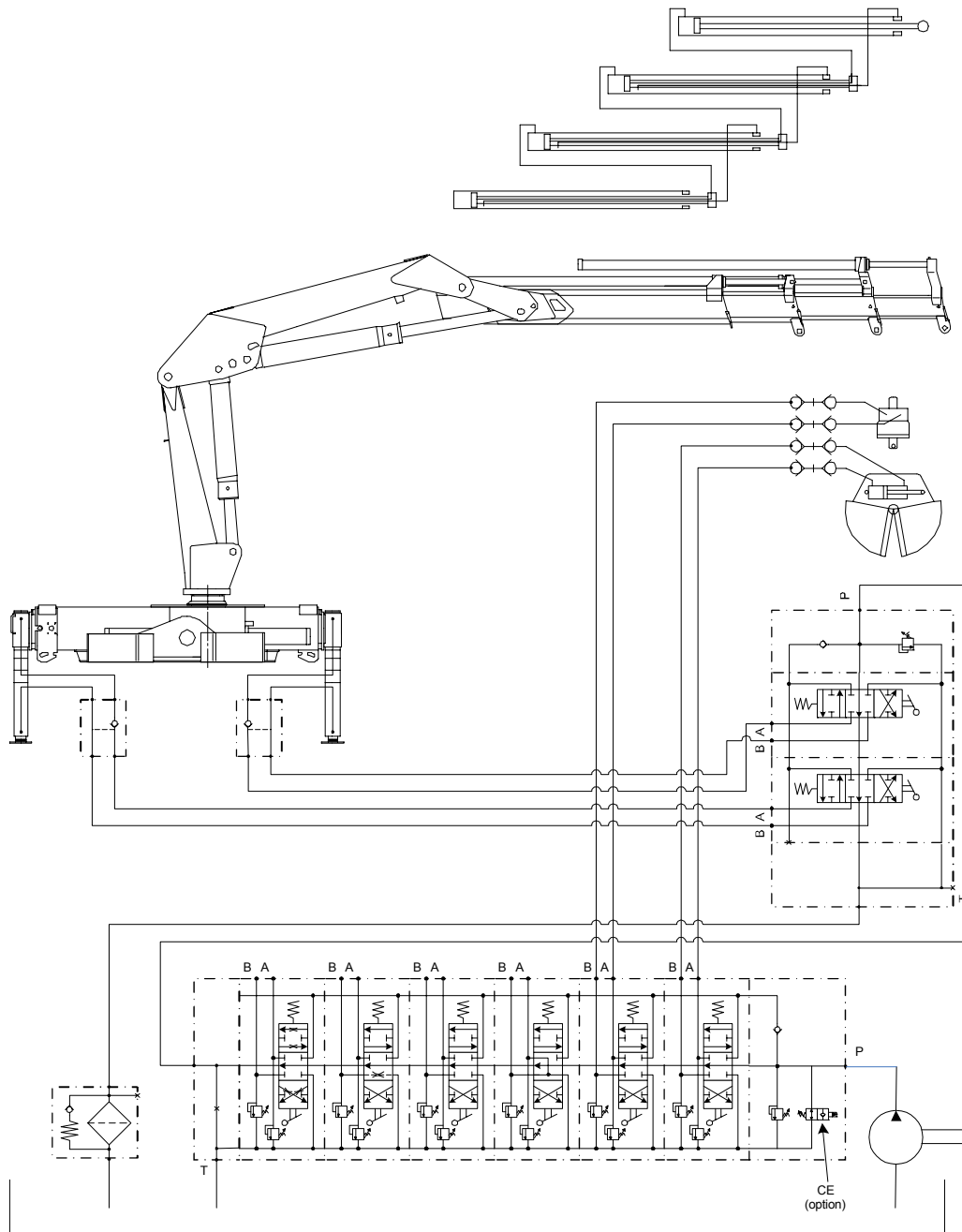
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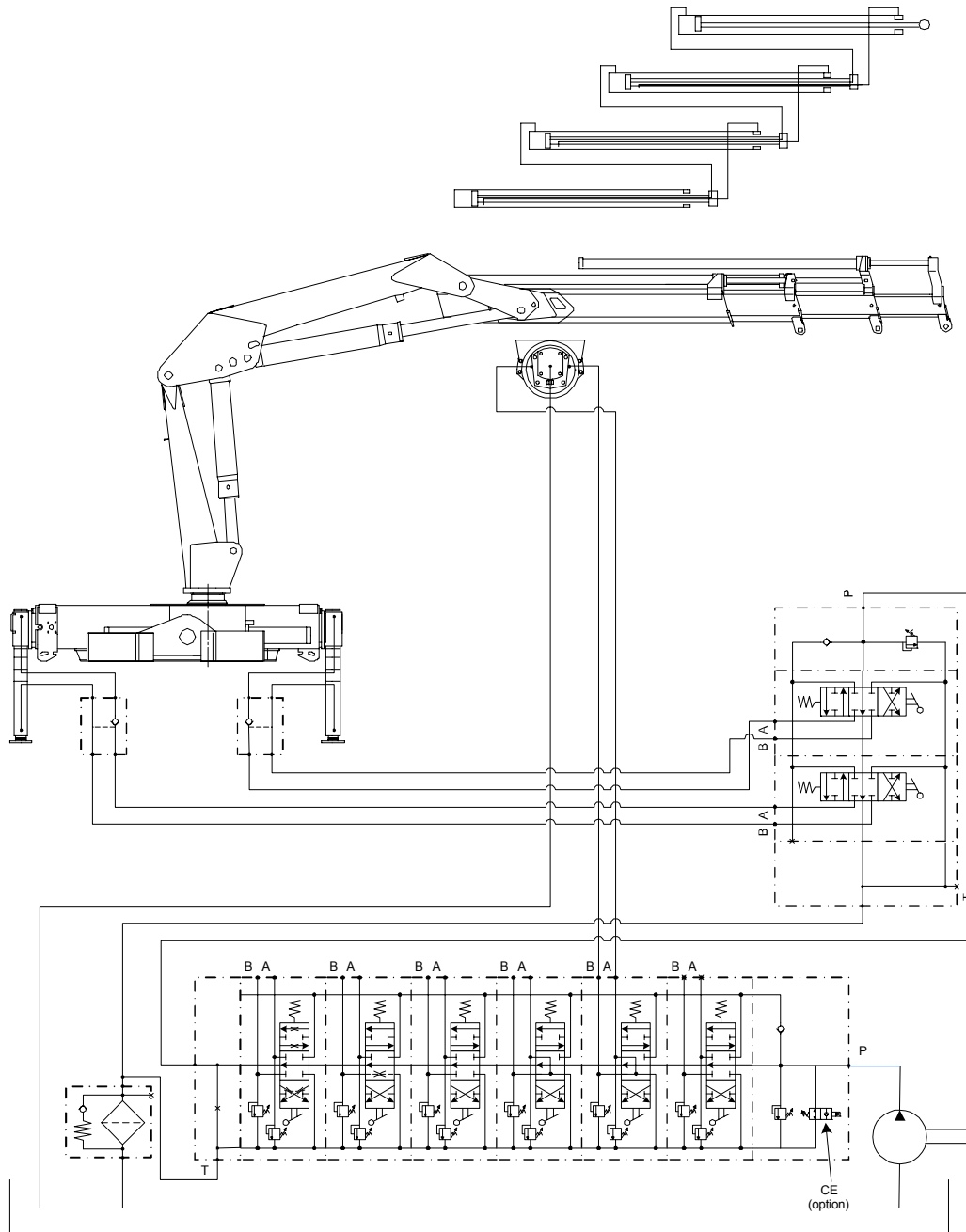
# Hydraulic Diagram - 5/33 Loader Functions



# Hydraulic Diagram - 5/33 with Extra Valves

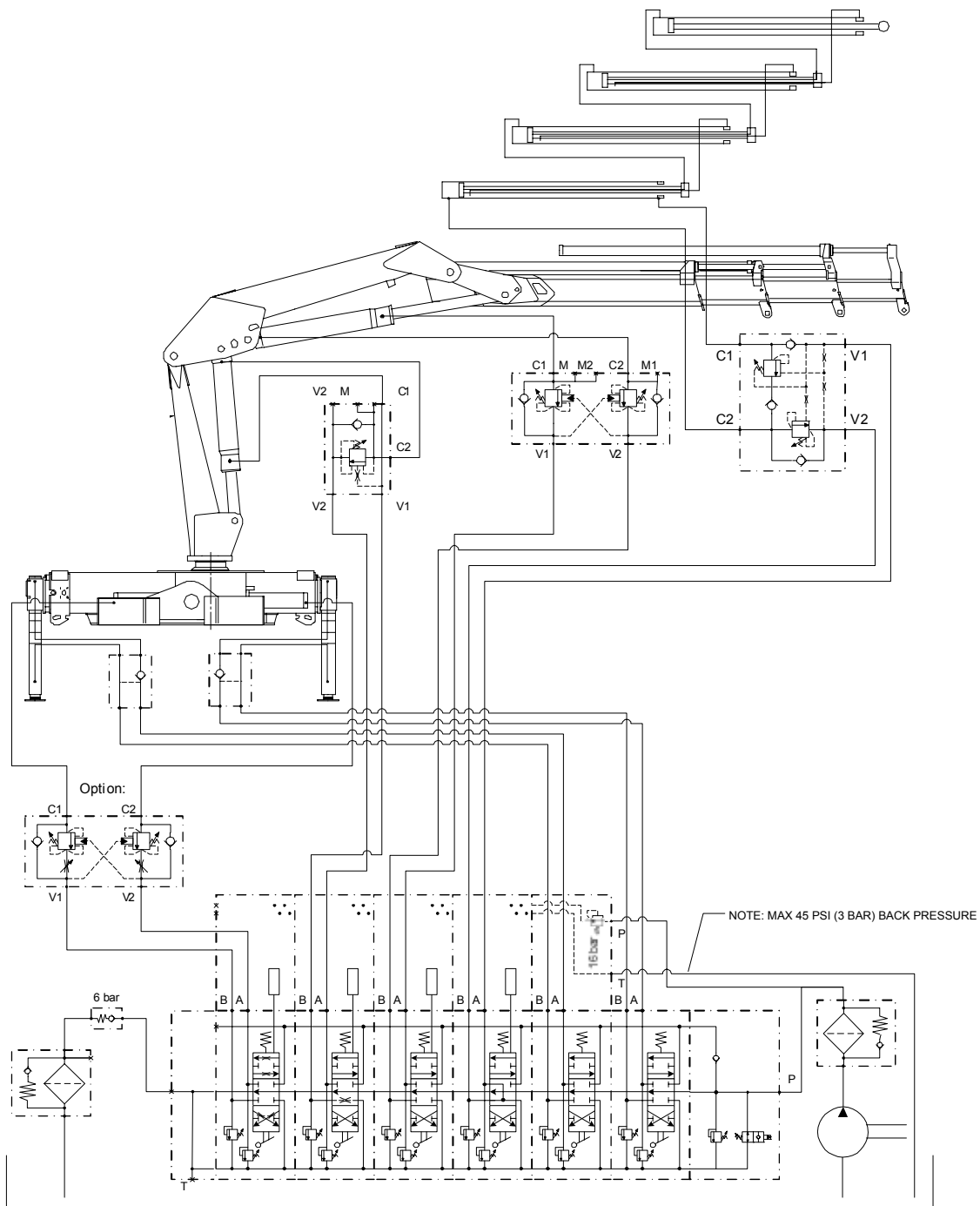


# Hydraulic Diagram - 5/33 with Winch





# Hydraulic Diagram - 5/33 Hydrocontrol M50 - Radio



# Hydraulic Diagram - 5/33 Danfoss PVG32

